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As filed with the Securities and Exchange Commission on June 28, 2018.

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Liquidia Technologies, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**2836**	**20-1926605**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

419 Davis Drive, Suite 100
Morrisville, North Carolina 27560
Telephone: (919) 328-4400
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Neal F. Fowler
Chief Executive Officer
Liquidia Technologies, Inc.
419 Davis Drive, Suite 100
Morrisville, North Carolina 27560
Telephone: (919) 328-4400
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Andrew P. Gilbert
David C. Schwartz
DLA Piper LLP (US)
51 John F. Kennedy Parkway, Suite 120
Short Hills, New Jersey 07078
(973) 520-2550

Brent B. Siler
Brian Leaf
Divakar Gupta
Cooley LLP
1299 Pennsylvania Avenue NW,
Suite 700
Washington, DC 20004
(202) 842-7800

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer" "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o	Accelerated filer o	Non-accelerated filer ☒ (Do not check if a smaller reporting company)	Smaller reporting company o Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☒

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	**Proposed Maximum Aggregate Offering Price[1][2]**	**Amount of Registration Fee[3]**
Common stock, par value $0.001 per share	$57,500,000	$7,159

(1) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933.

(2) Includes shares subject to the underwriters' option to purchase additional shares.

(3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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SUBJECT TO COMPLETION, DATED JUNE 28, 2018

PRELIMINARY PROSPECTUS

Shares

Liquidia Technologies, Inc.

Common Stock

We are offering shares of our common stock. This is our initial public offering and no public market currently exists for our common stock. We expect the initial public offering price to be between $ and $ per share. We have applied to list our common stock on The Nasdaq Capital Market under the symbol "LQDA".

We are an "emerging growth company" as defined in Section 2(a) of the Securities Act of 1933 and will be subject to reduced public company reporting requirements. See "Prospectus Summary—Implications of Being an Emerging Growth Company".

Investing in our common stock involves a high degree of risk. Please read "Risk Factors" beginning on page 13 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	PER SHARE	TOTAL
Public Offering Price	$	$
Underwriting Discounts and Commissions[(1)]		
Proceeds to Liquidia Technologies, Inc. before expenses		

(1) See "Underwriting" on page 174 for additional information regarding underwriting compensation.

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The underwriters will receive the same underwriting discount on these shares as they will on any other shares sold to the public in this offering.

Delivery of the shares of common stock is expected to be made on or about , 2018. We have granted the underwriters an option for a period of 30 days to purchase an additional shares of our common stock. If the underwriters exercise the option in full, the total discounts and commissions payable by us will be $, and the total proceeds to us, before expenses, will be $.

Joint Book-Running Managers

Jefferies **Cowen**

Co-Managers

Needham & Company **Wedbush PacGrow**

Prospectus dated , 2018.

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You should rely only on the information contained in this prospectus or in any free writing prospectus we file with the U.S. Securities and Exchange Commission, or the SEC. Neither we nor the underwriters have authorized anyone to provide you with information other than that contained in this prospectus or any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters are offering to sell, and seeking offers to buy, common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front cover page of this prospectus, or other earlier date stated in this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Through and including , 2018 (25 days after the commencement of this offering), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to their unsold allotments or subscriptions.

For investors outside the United States: We have not and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States. See "Underwriting."

TRADEMARKS

This prospectus includes our trademarks, trade names and service marks, such as Liquidia, the Liquidia logo and PRINT, which are protected under applicable intellectual property laws and are the property of Liquidia Technologies, Inc. This prospectus also contains trademarks, trade names and service marks of other companies, which are the property of their respective owners. Solely for convenience, trademarks, trade names and service marks referred to in this prospectus may appear without the ®, ™ or SM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks, trade names and service marks. We do not intend our use or display of other parties' trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties.

MARKET AND INDUSTRY DATA

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate is based on reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources as well as our own internal estimates and research. Decision Resources Group is the primary source for the market data included in this prospectus and we compensated them for use of market data. Although we believe the data from these third-party sources is reliable, we have not independently verified any third-party information. In addition, projections, assumptions and estimates of the future performance of the industry in which we operate and our future performance are necessarily subject to uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and does not contain all of the information that you should consider before deciding to invest in our common stock. You should read the entire prospectus carefully, including the "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the related notes included elsewhere in this prospectus, before making an investment decision. Except where the context otherwise requires or where otherwise indicated, the terms "Liquidia," "we," "us," "our," "our company" and "our business" refer to Liquidia Technologies, Inc.

Overview

We are a late-stage clinical biopharmaceutical company focused on the development and commercialization of human therapeutics using our proprietary PRINT® technology to transform the lives of patients. PRINT is a particle engineering platform that enables precise production of uniform drug particles designed to improve the safety, efficacy and performance of a wide range of therapies. We are currently focused on the development of two product candidates for which we hold worldwide commercial rights: LIQ861 for the treatment of pulmonary arterial hypertension, or PAH, and LIQ865 for the treatment of local post-operative pain. Our lead product candidate, LIQ861, is being evaluated in a Phase 3 trial. LIQ861 is a dry powder formulation of treprostinil designed to improve the therapeutic profile of treprostinil by enhancing deep-lung delivery and achieving higher dose levels than current inhaled therapies. We have applied our PRINT technology to enable us to deliver LIQ861 through a convenient, disposable dry powder inhaler, or DPI. We have also applied our PRINT technology to our second product candidate, LIQ865, for which we have recently completed a Phase 1b clinical trial. LIQ865 is designed to deliver sustained-release particles of bupivacaine, a non-opioid anesthetic, to treat local post-operative pain for three to five days through a single administration. In addition to developing our two product candidates, we collaborate, and intend to collaborate, with leading pharmaceutical companies to develop their own product candidates across a wide range of therapeutic areas, molecule types and routes of administration, leveraging our PRINT technology.

Our lead product candidate, LIQ861, is being evaluated for the treatment of PAH, a chronic, progressive disease caused by the hardening and narrowing of pulmonary arteries that can lead to right heart failure and eventually death. Prostacyclin is a vasoactive mediator essential to normal lung function that is deficient in patients with PAH. With PAH, the elevated pressure in the pulmonary arteries strains the right side of the heart as it pumps blood to the lungs. The extra stress causes the heart to enlarge and become less flexible, compromising its ability to push blood out of the heart through the lungs and into the rest of the body. PAH initially presents as exertional dyspnea, lethargy and fatigue and may be confused with other disease states with similar symptoms. PAH often goes undiagnosed or misdiagnosed until symptoms become severe, with the mean time from onset of symptoms to correct diagnosis being more than two years in the United States. As PAH progresses and right ventricular failure develops, exertional chest pain, or angina, exertional syncope and peripheral edema may develop. Following confirmation of diagnosis based on hemodynamic parameters, treatment is recommended to lower pulmonary pressures and treat the symptoms of PAH. Due to delayed diagnosis, many patients already have advanced disease requiring aggressive treatment combining multiple classes of therapy. PAH is a rare disease, with an estimated prevalence in the United States expected to be between 25,000 and 30,000 patients by 2020. PAH is most commonly diagnosed in the developed world, including the United States, Europe and Japan. Today, the mean age of diagnosis is 50 years according to both French and U.S. registries, with more women being diagnosed than men. Patients may have idiopathic PAH in which no underlying cause can be determined or a heritable form of the disease. A large number of PAH patients also have associated comorbidities such as congenital heart disease, HIV, connective tissue diseases like scleroderma, liver diseases, systemic hypertension, obesity, clinical depression, non-PAH related obstructive airways disease, sleep apnea and diabetes.

Decision Resources Group, an independent industry research firm, estimated that in 2016 more than 50% of patients with PAH in the United States were prescribed treprostinil across its three routes of administration (oral, inhaled and parenteral infusion), generating revenue that represented about one-third of the approximately $3.7 billion U.S. market for PAH drug therapies. The inhaled route of administration, in which medication is inhaled directly into the lungs, helps minimize the off-tissue adverse side effects of systemic delivery by delivering the drug directly where it is needed. Tyvaso® (treprostinil, inhaled solution), marketed by United Therapeutics Corporation in the United States, is the standard of care among the inhaled therapies, with more than 80% of inhaled prostacyclin sales in the United States. Current inhaled therapies, including Tyvaso, are delivered by a nebulizer, a device that converts a liquid formulation into mist, and require between four and nine doses per day. Nebulizers require regular care and maintenance, including daily cleaning and access to additional parts and supplies, such as distilled water and a power source, all of which compromise the portability of the device and the quality of life of patients.

We believe LIQ861, if approved, will be the first-to-market inhaled dry powder treprostinil that can be delivered using a convenient, palm-sized, disposable DPI. We believe LIQ861 can overcome the limitations of current inhaled therapies and has the potential to maximize the therapeutic benefits of treprostinil in treating PAH by safely delivering higher doses into the lungs. Based on our *in vitro* studies we believe that the precise size, trefoil-like shape and uniformity of each LIQ861 particle may provide deep-lung delivery of treprostinil and may reduce deposition in the upper airway where irritation and pain have been observed with nebulized treprostinil. If approved, we believe LIQ861 will have the potential to increase the number of patients using the inhaled route of treatment for PAH by providing the benefits of inhaled prostacyclin therapy earlier in a patient's disease progression as well as delaying the burden of starting continuously infused products. As of June 26, 2018, 22 patients have enrolled in our 100-patient, single, open-label Phase 3 trial, known as INSPIRE, or Investigation of the Safety and Pharmacology of Dry Powder Inhalation of Treprostinil, at eight trial sites and we have contracted a total of 22 trial sites to enroll patients. The study is designed to evaluate patients who have either been under stable treatment with nebulizer-delivered treprostinil for at least three months and are transitioned to LIQ861 under the protocol or who have been under stable treatment with no more than two non-prostacyclin oral PAH therapies for at least three months and have their treatment regimen supplemented with LIQ861 under the protocol. Our first patient was enrolled in the INSPIRE trial on March 15, 2018. Of the total enrolled patient population, as of June 26, 2018, 16 patients have received at least two weeks of LIQ861 at a stable dose. Two weeks is the first scheduled patient assessment.

Our second product candidate, LIQ865, is an injectable, sustained-release formulation of bupivacaine for the management of local post-operative pain for three to five days after a procedure. We believe LIQ865, if approved, has the potential to provide significantly longer local post-operative pain relief compared to currently marketed formulations of bupivacaine. We estimate that there were over 40 million surgeries in our target market, which consists of orthopedic and soft tissue surgeries, performed in the United States in 2016. According to IMS Health, an independent market research firm, the global market for local anesthetics was approximately $776 million in 2016. Post-operative pain management is becoming more important as surgeries increase in volume and complexity and hospitals seek treatments that support faster recovery and time to discharge. Concurrently, the risk of opioid abuse and diversion has led physicians, payors and the U.S. federal government to prioritize pain management strategies that minimize reliance on opioids. Local anesthetics, such as bupivacaine, provide a well-established, non-opioid option for post-operative pain management, but their duration of efficacy has been limited to eight hours or less. The United States Food and Drug Administration, or the FDA, has approved one long-acting local anesthetic, liposomal bupivacaine, but pain relief typically lasts only 24 to 36 hours, according to physicians, and its use in combination with other local anesthetics can result in an unsafe release of drug. In LIQ865, we have engineered the size and composition of the PRINT particles to release bupivacaine over three to five days through a single administration.

Both LIQ861 and LIQ865 are being developed using our proprietary PRINT particle engineering technology, which allows us to engineer and manufacture highly uniform drug particles with independent control over their size, three-dimensional geometric shape and chemical composition. By controlling these physical and chemical parameters of particles, PRINT enables us to engineer desirable pharmacological benefits into product candidates, including prolonged duration of drug release, increased drug loading, more convenient routes of administration, the ability to create novel combination product, enhanced storage and stability and the potential to reduce adverse side effects. Controlling three-dimensional geometric shape and chemical composition of drug particles enables us to research, identify and pursue the improvement of existing therapies and creation of new therapies from existing drugs or new chemical entities, including small molecules and biologics. Our ability to design and control these features of drug particles has the potential to provide significant benefits across the breadth of pharmaceutical applications. Product characteristics and features can be tuned depending on the need of a particular application, drug substance, delivery route and other such considerations. Based on our research to date, we anticipate the ability to: (i) enhance inhaled delivery through the highly uniform geometric shape of each drug particle; (ii) design desired drug release profiles ranging from minutes post-delivery to days, weeks or months depending on need of a target therapy, by controlling the chemical composition of the drug particles and the surface area-to-volume ratio of the particles; (iii) enable combination products where one or more of the chemical constituents can destabilize or interact by encapsulating the desired constituent in a particle to shield it from another constituent during packaging and storage; and (iv) enhance the deposition and retention of topically delivered products by designing particles with a desired charge and/or Young's modulus. Our molding approach, which we branded as "PRINT", or Particle Replication In Non-wetting Templates, combines the precision of the semi-conductor industry with the high throughput of roll-to-roll manufacturing to make highly uniform micro- and nano-particles at a commercially viable scale. Our manufacturing equipment and materials used in the production of our drug particles are proprietary and protected by our patent portfolio and trade secret know-how. Our PRINT equipment is also modular, scalable and cost-effective. We protect our PRINT technology and the resulting engineered particles through a combination of patents, trade secrets, proprietary know-how and licensing arrangements. We have an active patent strategy that covers major geographic markets, including the United States, Europe and Japan.

Initially, our internal pipeline is focused on the development of improved and differentiated drug products containing FDA-approved active pharmaceutical ingredients, or APIs, with established efficacy and safety profiles, which we believe are eligible for the 505(b)(2) regulatory pathway to seek marketing approval in the United States. The 505(b)(2) regulatory pathway can be capital efficient and potentially enable a shorter time to approval. We intend to seek marketing approval in the United States for LIQ861 and LIQ865 under the 505(b)(2) regulatory pathway, which would allow us to rely in part on existing knowledge of the safety and efficacy of the reference listed drugs. LIQ861 and the DPI together will be regulated as a combination product by the FDA. In addition to building our own internal pipeline, we collaborate with leading pharmaceutical companies to develop their own product candidates across a wide range of therapeutic areas, molecule types and routes of administration. Through our collaboration arrangement with GlaxoSmithKline plc and its subsidiaries, collectively, GSK, we apply PRINT technology to novel molecules. GSK has the right to apply our PRINT technology broadly across inhaled delivery of their small molecule and biologic chemical entities. If our product candidates receive marketing approval, we plan to commercialize them in the United States by establishing our own sales force and commercial infrastructure. Outside of the United States, we intend to pursue the regulatory approval and commercialization of our product candidates with leading pharmaceutical companies with regional expertise. We intend to manufacture PRINT particles using in-house capabilities. Where appropriate, we will rely on contract manufacturing organizations, or CMOs, to produce, package and distribute our approved drug products on a commercial scale.

Product Pipeline

The following table summarizes key information about clinical-stage product candidates being developed using PRINT technology:

Product	Indication	Formulation & Route	Phase 1	Phase 2	Phase 3	Next Key Milestone	Worldwide Commercial Rights
LIQ861[1]	PAH	Dry powder inhalation				Safety data 1H:19	Liquidia
LIQ865	Local, post-operative pain	Sustained-release injectable				Ph2-enabling studies commencing 2H:18	Liquidia

1. After consultation with the FDA, we advanced from a Phase 1 trial directly to a single, pivotal Phase 3 trial and will seek approval under the 505(b)(2) pathway.

Our Strategy

Our goal is to develop and commercialize medicines with improved and differentiated product profiles based on our PRINT particle engineering technology. To achieve this goal, we intend to execute the following key elements of our business strategy:

- ***Complete the pivotal, safety and pharmacology Phase 3 trial for our lead product candidate, LIQ861, in PAH.*** We initiated INSPIRE, a single, open-label Phase 3 trial, in 100 patients with PAH. We believe, based on feedback from the FDA, that this clinical trial will support the new drug application, or NDA, filing for our novel inhaled dry powder formulation of treprostinil to treat PAH. We expect to release safety data from INSPIRE in the first half of 2019.

- ***Advance our local post-operative pain product candidate, LIQ865, through Phase 2-enabling toxicology studies.*** We completed a Phase 1a clinical trial of LIQ865, our novel long-acting formulation of bupivacaine, in Denmark in March 2017, and a Phase 1b clinical trial in the United States in April 2018. We expect to initiate Phase 2-enabling toxicology studies in the second half of 2018 which are expected to be followed by an additional Phase 2-enabling toxicology study in 2019, subject to the availability of sufficient funding.

- ***Secure regulatory approval and commercialize our internal product candidates independently in the United States and with leading pharmaceutical companies globally.*** We hold worldwide commercialization rights to LIQ861 and LIQ865. Subject to receiving marketing approval, which we intend to pursue in the United States via the 505(b)(2) regulatory pathway, we intend to independently pursue the commercialization of LIQ861 in the United States by establishing targeted sales and marketing teams. After reviewing the results of all of our Phase 2-enabling toxicology studies for LIQ865, and subject to the availability of sufficient funding, we will develop and commercialize LIQ865 independently, if it is ultimately approved, or seek to license this product candidate to one or more third parties. Outside of the United States, we intend to pursue the regulatory approval and commercialization of LIQ861 and LIQ865 with leading pharmaceutical companies with regional expertise.

- ***Expand our internal pipeline leveraging our PRINT technology.*** We intend to continue targeting diseases where we believe our PRINT technology can improve the efficacy, safety and patient experience of current treatments that have been impaired by suboptimal drug product formulation and delivery. We plan to focus initially on the development of improved and differentiated drug products containing FDA-approved APIs with proven efficacy and safety profiles eligible to use the

505(b)(2) regulatory pathway. In addition, we may expand our clinical development of LIQ861 and LIQ865, where appropriate, into broader indications or new applications.

§ ***Pursue strategic collaborations to maximize the value of products enabled by PRINT technology.*** In addition to advancing our own internal product candidates, we intend to continue collaborating with leading pharmaceutical companies to expand the applications for our PRINT technology. Our collaborations help advance new PRINT capabilities, while adding to our intellectual property portfolio.

Our Competitive Strengths

We believe that we have several key strengths that have contributed to the development of our business and that will help us to realize our goal of becoming a biopharmaceutical company across research, development and commercialization activities. Our competitive strengths include:

§ ***Our PRINT technology gives us the capability to overcome the constraints of conventional formulation and production methods and can be applied broadly across therapeutic areas, molecule types and routes of administration.*** Our PRINT technology allows us to precisely engineer drug particles in a wide variety of compositions, sizes and shapes and achieve a high level of control over the physical and chemical characteristics of drug particles, as compared to conventional formulation and production methods. PRINT particles can be designed to address specific pharmacological or therapeutic objectives, such as enhancing the route of administration, improving solubility, enhancing stability or extending therapeutic effects. Using our PRINT technology, we are able to engineer, among others, small molecule and biologic particles, single agent drug and combination drug particles and vaccine particles to improve efficacy, safety and convenience for patients. Our internal pipeline strategy is currently focused on developing proprietary innovations to currently approved drug products in order to minimize development risks and increase speed to market.

In particular, we have designed LIQ861 to maximize the therapeutic benefits of treprostinil in treating PAH by safely delivering higher doses into the lungs using a convenient, palm-sized, disposable DPI. We believe that this may lead to a more attractive product profile with a more convenient method of administering the drug, as compared to existing inhaled therapies. We have also designed LIQ865 with the intention of providing patients with local post-operative analgesia for three to five days. We believe this would provide a longer period of pain relief than existing local-acting pain drugs, which could be a positive feature in light of interest in reducing reliance on opioids and non-steroidal anti-inflammatory drugs, or NSAIDs, for local post-operative pain management.

Our PRINT technology is broadly applicable — across therapeutic areas, molecule types and routes of administration — providing us with opportunities for future drug product development.

§ ***We have scaled operations with rapid and cost-effective transition to clinical development and commercial production.*** We believe our research and development operations and PRINT technology allow us to transition rapidly and cost-effectively from laboratory to clinical development and commercial-scale manufacture of drug particles. Utilizing well-established techniques from other roll-to-roll manufacturing processes, we have scaled PRINT technology to support the quality and quantity needs for clinical and, we believe, commercial production of our product candidates. We believe our production facilities comply with the FDA's current good manufacturing practices, or cGMP, requirements. The physical equipment for the PRINT technology requires a relatively small footprint, low capital investment and minimal operating costs. We believe that our PRINT technology provides us and our CMOs with the ability to expand production capacity cost-effectively.

§ ***We have a strong proprietary position through a combination of patents, trade secrets, proprietary know-how and licensing arrangements.*** We protect our PRINT technology and the resulting engineered particles through a combination of patents, trade secrets, proprietary know-how and licensing arrangements. We have an active patent strategy that covers major geographic markets, including the United States, Europe and Japan. As of June 15, 2018, our patent portfolio, which

includes patents and patent applications we own or co-own, as well as patents and patent applications we have licensed from third parties, such as the University of North Carolina at Chapel Hill, or UNC, comprises 88 issued patents and 42 pending patent applications worldwide. As we develop new product candidates, either independently or with collaborators, we will seek additional patent protection.

- ***We have strong capabilities in pharmaceutical research and clinical development.*** Our research and development team includes 26 employees, led by our senior management, and has extensive experience in clinical development and pharmaceutical research and development activities in our specific areas of research interest.

- ***We have a seasoned management team.*** Our team includes industry veterans with significant experience in drug discovery, development and commercialization. Members of our leadership team have worked across different segments of the pharmaceutical industry, including branded and generic pharmaceuticals, medical devices and manufacturing services. Prior to joining us, our Chief Executive Officer and director, Neal Fowler, served as president of Centocor, Inc., a subsidiary of Johnson & Johnson that is focused on the development and commercialization of biomedicines used to treat chronic inflammatory diseases. Additionally, our President and Chief Financial Officer, Kevin Gordon, previously served as executive vice president and chief operating officer and chief financial officer of Quintiles Transnational Holdings Inc. (now named IQVIA Holdings Inc.), a global biopharmaceutical services provider, and our Chief Operations Officer, Robert Lippe, previously served as executive vice president of operations and chief operations officer at Alexza Pharmaceuticals, Inc. Furthermore, our Senior Vice President, Product Development, Dr. Robert Roscigno, previously served as the executive vice president of GeNO, LLC, where he led the clinical development team working on a novel nitric oxide delivery system, and before that he served as the president and chief operating officer of Lung Rx, Inc., where he was part of the team responsible for bringing Tyvaso through Phase 3 development, and he previously served in multiple leadership positions at United Therapeutics Corporation and its subsidiaries, contributing to the successful development and worldwide commercialization of Remodulin™, which is treprostinil administered through subcutaneous intravenous infusion, for the treatment of PAH. We believe that their experience enables us to evaluate opportunities and build collaboration arrangements that match the breadth of the potential applications of our PRINT technology.

Risks Related to Our Business

Our ability to successfully implement our business strategy is subject to numerous risks, as more fully described in the section entitled "Risk Factors" immediately following this prospectus summary. These risks include, among others:

- We are a clinical-stage biopharmaceutical company with no approved products and no historical product revenue, which may make it difficult for you to evaluate our business, financial condition and prospects.

- We are primarily dependent on the success of our lead product candidate, LIQ861, and to a lesser degree, LIQ865, which are still in clinical development, and these product candidates may fail to receive marketing approval or may not be commercialized successfully.

- Our preclinical studies and clinical trials may not be successful and delays to such preclinical studies or clinical trials may cause our costs to increase and significantly impair our ability to commercialize our product candidates. Results of previous clinical trials or interim results of ongoing clinical trials may not be predictive of future or final results.

- We are planning to pursue the FDA 505(b)(2) pathway to apply for marketing approval of our product candidates in the United States. If we are unable to rely on the 505(b)(2) regulatory pathway, we will be required to seek approval of these product candidates through the 505(b)(1) NDA pathway, which would require full clinical trials to establish safety and effectiveness, and the process of obtaining marketing approval for our product candidates would likely be significantly longer and more costly.

- If we are unable to establish or maintain licensing and collaboration arrangements with other pharmaceutical companies on acceptable terms, or at all, we may not be able to develop and commercialize additional product candidates using our PRINT technology.
- We may not be able to build our marketing and sales capabilities or enter into agreements with third parties to market and sell our drug products.
- Although we have historically depended on GSK for a significant portion of our revenue, we do not expect to receive any near-term revenue from GSK.
- We depend on third parties for clinical and commercial supplies, including a single supplier for the active ingredient of LIQ861.
- Even if this offering is successful, we expect that we will need further financing for our existing business and future growth, which may not be available on acceptable terms, if at all. Failure to obtain funding on acceptable terms and on a timely basis may require us to curtail, delay or discontinue our product development efforts or other operations. The failure to obtain further financing may also prevent us from capitalizing on other potential product candidates or indications which may be more profitable than LIQ861 and LIQ865 or for which there may be a greater likelihood of success.
- We may be unable to continually develop a pipeline of product candidates, which could affect our business and prospects.
- We may encounter difficulties in enrolling patients in our clinical trials.
- The marketing approval processes of the FDA and comparable regulatory authorities in other countries are unpredictable and our product candidates may be subject to multiple rounds of review or may not receive marketing approval.
- The commercial success of our drug products depends on the availability and sufficiency of third-party payor coverage and reimbursement.
- Our commercial success depends largely on our ability to protect our intellectual property.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. As an emerging growth company:

- we may present only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- we may provide reduced disclosure about our executive compensation arrangements;
- we are not required to have advisory votes on executive compensation or golden parachute arrangements; and
- we have an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of 2023; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We have chosen to opt out of the extended transition periods available to emerging growth companies under the JOBS Act for complying with new or revised accounting standards. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition periods for complying with new or revised accounting standards is irrevocable. We may choose to take

advantage of some but not all of these other exemptions available to emerging growth companies. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock.

Corporate Information

Liquidia Technologies, Inc. was incorporated in Delaware on June 8, 2004. Our principal executive offices are located at 419 Davis Drive, Suite 100, Morrisville, North Carolina 27560 and our telephone number is (919) 328-4400. Our website is located at www.liquidia.com. The information on or that can be accessed through our website is not incorporated by reference into this prospectus, and you should not consider any such information as part of this prospectus or in deciding whether to purchase our common stock.

THE OFFERING

Issuer	Liquidia Technologies, Inc.
Common stock offered by us	shares (or shares if the underwriters exercise their option to purchase additional shares in full).
Common stock to be outstanding immediately after this offering	shares (or shares, if the underwriters exercise their option to purchase additional shares in full).
Option to purchase additional shares	We have granted to the underwriters the option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of common stock.
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately $ million (or approximately $ million if the underwriters exercise in full their option to purchase additional shares of common stock), based on an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus. We currently estimate that we will use the net proceeds from this offering to complete our ongoing Phase 3 clinical trial of LIQ861, advance LIQ865 through our planned Phase 2-enabling toxicology studies in 2018, fund operations supporting the development of LIQ861 and LIQ865 and repay $2.3 million of outstanding indebtedness as of March 31, 2018. We will use the remainder for working capital and general corporate purposes. See "Use of Proceeds" for more information.
Risk factors	You should read the "Risk Factors" section beginning on page 13 of this prospectus for a discussion of the factors you should carefully consider before deciding to purchase any shares of our common stock.
Proposed Nasdaq Capital Market symbol	"LQDA"

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The underwriters will receive the same underwriting discount on these shares as they will on any other shares sold to the public in this offering.

The number of shares of our common stock to be outstanding after this offering is based on 10,122,219 shares of our common stock outstanding as of March 31, 2018, and gives effect to the conversion of all of

our outstanding preferred stock and Class B non-voting common stock into shares of our common stock, which will occur automatically upon the closing of this offering, and excludes:

- 23,783,999 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2018, with a weighted average exercise price of $0.45 per share;
- shares of common stock issuable upon the exercise of stock options granted after March 31, 2018, with a weighted average exercise price of $ per share;
- 2,146,767 shares of common stock issuable upon the vesting of restricted stock units granted on March 7, 2018 to Kevin Gordon, our President and Chief Financial Officer;
- 4,394,914 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2018, with a weighted average exercise price of $0.0008 per share;
- an aggregate of shares of common stock issuable upon the exercise of stock options to be granted to certain of our officers and directors on the date of execution of the underwriting agreement under the 2018 Plan, assuming we sell shares in this offering, at an exercise price equal to the initial public offering price per share;
- shares of common stock issuable upon the vesting of restricted stock units to be granted to Mr. Gordon on the date of execution of the underwriting agreement pursuant to his employment agreement, assuming we sell shares in this offering;
- an additional 5,915,157 shares of common stock reserved for issuance under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as amended, or the 2016 Plan, as of March 31, 2018, which shares will no longer be reserved following this offering; and
- an additional shares of common stock that will be made available for future issuance under the Liquidia Technologies, Inc. 2018 Long-Term Incentive Plan, or the 2018 Plan, upon the effectiveness of the registration statement of which this prospectus forms a part.

Unless otherwise indicated, all information in this prospectus reflects or assumes the following:

- the filing of our amended and restated certificate of incorporation and the effectiveness of our amended and restated by-laws upon the closing of this offering;
- the conversion of all of our outstanding shares of preferred stock into an aggregate of shares of common stock upon the closing of this offering;
- no exercise of outstanding options after March 31, 2018;
- a -for- reverse split of our common stock to be effected prior to the completion of this offering; and
- no exercise by the underwriters of their option to purchase up to additional shares of common stock in this offering.

SUMMARY FINANCIAL DATA

The following tables set forth, for the periods and at the dates indicated, our summary financial data. The statement of operations data for the years ended December 31, 2016 and 2017 are derived from our audited financial statements appearing elsewhere in this prospectus. The summary statement of operations data for the three months ended March 31, 2017 and 2018 and our balance sheet data as of March 31, 2018 are derived from our unaudited interim financial statements included elsewhere in this prospectus. Other than for the impacts of adoption of accounting standards, the unaudited interim financial statements were prepared on a basis consistent with our audited financial statements and reflect, in the opinion of management, all adjustments of a normal recurring nature that are necessary for the fair statement of our financial position as of March 31, 2018 and our results of operations for the three months ended March 31, 2017 and 2018. Our historical results are not necessarily indicative of the results that may be expected in any future period and the results for the three months ended March 31, 2018 are not necessarily indicative of results to be expected for the full year ending December 31, 2018, or any other period. You should read the following information together with the more detailed information contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the accompanying notes thereto appearing elsewhere in this prospectus. The summary financial data in this section are not intended to replace the financial statements and are qualified in their entirety by the financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,		Three Months Ended March 31,	
	2016	2017	2017	2018
Statement of Operations Data:				
Revenues	$ 13,216,989	$ 7,258,123	$ 1,639,176	$ 925,970
Costs and expenses:				
Cost of sales	918,778	319,759	79,940	27,049
Research and development	23,319,886	24,753,876	6,175,557	7,626,701
General and administrative	4,841,128	10,212,774	2,151,078	2,149,725
Total costs and expenses	29,079,792	35,286,409	8,406,575	9,803,475
Loss from operations	(15,862,803)	(28,028,286)	(6,767,399)	(8,877,505)
Other income (expense):				
Interest income	14,906	268	151	—
Interest expense	(85,865)	(13,010,475)	(2,246,447)	(17,876,795)
Derivative and warrant fair value adjustment	—	11,884,253	(823,051)	(753,887)
Total other income (expense), net	(70,959)	(1,125,954)	(3,069,347)	(18,630,682)
Net loss	(15,933,762)	(29,154,240)	(9,836,746)	(27,508,187)
Other comprehensive loss	—	—	—	—
Comprehensive loss	$ (15,933,762)	$ (29,154,240)	$ (9,836,746)	$ (27,508,187)
Net loss per share, basic and diluted	$ (2.16)	$ (3.08)	$ (1.05)	$ (2.63)
Weighted average shares outstanding, basic and diluted	7,361,596	9,475,083	9,329,157	10,441,880
Pro forma net loss per share, basic and diluted (unaudited)		$		$
Pro forma weighted average common shares outstanding, basic and diluted (unaudited)		$		$

	As of March 31, 2018		
	Actual	Pro forma[1]	Pro forma as adjusted[2]
Balance Sheet Data:			
Cash	$ 17,593,796	$	$
Working capital[3]	4,226,959		
Total assets	29,228,260		
Total debt	12,358,368		
Capital stock and additional paid-in capital	134,199,601		
Accumulated deficit	(141,426,223)		
Total stockholders' (deficit) equity	(7,226,622)		

(1) The pro forma balance sheet data give effect to the conversion of all outstanding shares of preferred stock into an aggregate of shares of our common stock, which will occur automatically upon the closing of this offering.

(2) The pro forma as adjusted balance sheet data give further effect to (i) our sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and (ii) our use of $2.3 million of the proceeds therefrom to repay debt outstanding as of March 31, 2018 as described in "Use of Proceeds".

(3) We define working capital as current assets less current liabilities.

The pro forma as adjusted information discussed above is illustrative only and will depend on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover of this prospectus, would increase or decrease each of pro forma as adjusted cash, working capital, total assets and total stockholders' equity by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions. We may also increase or decrease the number of shares we are offering. Each increase or decrease of 1.0 million in the number of shares offered by us would increase or decrease each of pro forma as adjusted cash, working capital, total assets and total stockholders' equity by $ million, assuming that the assumed initial public offering price remains the same, and after deducting estimated underwriting discounts and commissions.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this prospectus, including our financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Related to Our Company and our Financial Condition

We have a history of losses, have not commenced commercial operations to date and our future profitability is uncertain.

We have incurred net losses of $15.9 million and $29.2 million for the years ended December 31, 2016 and 2017, respectively, and $27.5 million for the three months ended March 31, 2018. We also had negative operating cash flows in 2016 and 2017 and negative working capital at December 31, 2016 and 2017. As of December 31, 2017 and March 31, 2018, we had an accumulated deficit of $113.4 million and $141.4 million, respectively.

Since our incorporation, we have invested heavily in the development of our product candidates and technologies, as well as in recruiting management and scientific personnel. To date, we have not commenced the commercialization of our product candidates and all of our revenue has been derived from up-front fees and milestone payments made to us in connection with licensing and collaboration arrangements we have entered into. These up-front fees and milestone payments have been, and may continue to be, insufficient to match our operating expenses. We expect to continue to devote substantial financial and other resources to the clinical development of our product candidates and, as a result, must generate significant revenue to achieve and maintain profitability. We may continue to incur losses and negative cash flow and may never transition to profitability or positive cash flow.

We are primarily dependent on the success of our lead product candidate, LIQ861, and to a lesser degree, LIQ865, which are still in clinical development, and these product candidates may fail to receive marketing approval or may not be commercialized successfully.

We have no products approved for marketing in any jurisdiction and we have never generated any revenue from product sales. Our ability to generate revenue from product sales and achieve profitability depends on our ability, alone or with strategic collaboration partners, to successfully complete the development of, and obtain the regulatory and marketing approvals necessary to commercialize one or more of our product candidates. We expect that a substantial portion of our efforts and expenditure over the next few years will be devoted to our product candidates, LIQ861, a proprietary inhaled dry powder formulation of treprostinil, which is intended as an inhaled therapy for pulmonary arterial hypertension, or PAH, and LIQ865, a sustained-release formulation of bupivacaine for the management of local post-operative pain. We do not anticipate generating revenue from product sales for at least the next few years, if ever.

We have completed a Phase 1 clinical trial for LIQ861 and an early Phase 1a clinical trial in Denmark for LIQ865 and a Phase 1b clinical trial for LIQ865 in the United States. We commenced a Phase 3 clinical trial for LIQ861 in the first quarter of 2018, and we expect to initiate Phase 2-enabling toxicology studies for LIQ865 in the second half of 2018 which are expected to be followed by an additional Phase 2-enabling toxicology study in 2019, subject to the availability of sufficient funding. We cannot assure you that our clinical trials, if commenced, will be successful or meet their endpoints.

If we successfully complete the clinical development of LIQ861 and LIQ865, we cannot assure you that they will receive marketing approval. The FDA or comparable regulatory authorities in other countries may

delay, limit or deny approval of our product candidates for various reasons. For example, such authorities may disagree with the design, scope or implementation of our clinical trials, or with our interpretation of data from our preclinical studies or clinical trials. Status as a combination product, as is the case for LIQ861, may complicate or delay the FDA review process. Product candidates that the FDA deems to be combination products, such as LIQ861, or that otherwise rely on innovative drug delivery systems, may face additional challenges, risks and delays in the product development and regulatory approval process. Moreover, the applicable requirements for approval may differ from country to country.

If we successfully obtain marketing approval for LIQ861 and LIQ865, we cannot assure you that they will be commercialized in a timely manner or successfully, or at all. For example, LIQ861 and LIQ865 may not achieve a sufficient level of market acceptance, or we may not be able to effectively build our marketing and sales capabilities or scale our manufacturing operations to meet commercial demand. The successful commercialization of LIQ861 and LIQ865 will also, in part, depend on factors that are beyond our control. Therefore, we may not generate significant revenue from the sale of such products, even if approved. Any delay or setback we face in the commercialization of LIQ861 or LIQ865 may have a material and adverse effect on our business and prospects, which will adversely affect your investment in our company.

We are a clinical-stage biopharmaceutical company with no approved products and no historical product revenue, which may make it difficult for you to evaluate our business, financial condition and prospects.

We are a clinical-stage biopharmaceutical company with no history of commercial operations upon which you can evaluate our prospects. Drug product development involves a substantial degree of uncertainty. Our operations to date have been limited to developing our PRINT technology, undertaking preclinical studies and clinical trials for our product candidates and collaborating with leading pharmaceutical companies, including GlaxoSmithKline plc and/or its subsidiaries, collectively, GSK, to expand the applications for our PRINT technology through licensing as well as joint product development arrangements. We have not obtained marketing approval for any of our product candidates and, accordingly, have not demonstrated an ability to generate revenue from pharmaceutical products or successfully overcome the risks and uncertainties frequently encountered by companies undertaking drug product development. Consequently, your ability to assess our business, financial condition and prospects may be significantly limited. Further, the net losses that we incur may fluctuate significantly from quarter-to-quarter and year-to-year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance. Other unanticipated costs may also arise.

Our net losses and significant cash used in operating activities have raised substantial doubt regarding our ability to continue as a going concern.

Our financial statements as of and for the year ended December 31, 2017 include a statement that our recurring losses and cash outflows from operations, our accumulated deficit and our debt maturing within twelve months raise substantial doubt about our ability to continue as a going concern. If we are unable to obtain sufficient funding, our business, prospects, financial condition and results of operations will be materially and adversely affected, and we may be unable to continue as a going concern. If we are unable to continue as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our audited financial statements, and it is likely that investors will lose all or a part of their investment. Our ability to continue as a going concern could also materially limit our ability to raise additional funds through the issuance of new debt or equity securities or generate revenues from licensing and collaboration arrangements. After this offering, future financial statements may also include statements expressing substantial doubt about our ability to continue as a going concern. If we seek additional financing to fund our business activities in the future and there remains substantial doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding to us on commercially reasonable terms or at all.

Even if this offering is successful, we expect that we will need further financing for our existing business and future growth, which may not be available on acceptable terms, if at all. Failure to obtain funding on acceptable terms and on a timely basis may require us to curtail, delay or discontinue our product development efforts or other operations. The failure to obtain further financing may also prevent us from capitalizing on other potential product candidates or indications which may be more profitable than LIQ861 and LIQ865 or for which there may be a greater likelihood of success.

We anticipate that we will need to raise additional funds to meet our future funding requirements.

In the event that funds generated from our operations are insufficient to fund our future growth, we may raise additional funds through an issuance of equity or debt securities or by borrowing from banks or other financial institutions. We cannot assure you that we will be able to obtain such additional financing on terms that are acceptable to us, or at all. Global and local economic conditions could negatively affect our ability to raise funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of such securities may include liquidation or other preferences that adversely affect your rights as a stockholder. Such financing, even if obtained, may be accompanied by restrictive covenants that may, among others, limit our ability to pay dividends or require us to seek consent for payment of dividends, or restrict our freedom to operate our business by requiring consent for certain actions.

If we fail to obtain additional financing on terms that are acceptable to us, we will not be able to implement our growth plans, and we may be required to significantly curtail, delay or discontinue one or more of our research, development or manufacturing programs or the commercialization of any approved product. Furthermore, if we fail to obtain additional financing on terms that are acceptable to us, we may forgo or delay the pursuit of opportunities presented by other potential product candidates or indications that may later prove to have greater commercial potential than the product candidates and indications that we have chosen to pursue.

Although we have historically depended on GSK for a significant portion of our revenue, we do not expect to receive any near-term revenue from GSK.

We are party to a licensing agreement with GSK pursuant to which GSK has exercised an option to exclusively license our PRINT technology for applications in certain inhaled therapies, or the GSK ICO Agreement. We previously entered into a separate licensing agreement with GSK relating to the field of vaccines, or the GSK VCO Agreement, which lapsed in April 2016. We have historically received a significant portion of our revenue from GSK pursuant to these licensing agreements. For the years ended December 31, 2016 and 2017, our revenue attributable to our collaboration and licensing arrangements with GSK, which included a combination of billings for particle formulations, manufacturing, milestone payments and amortization of deferred revenue from up-front fees, accounted for 90% and 84%, respectively, of our total revenue. For the three months ended March 31, 2017 and 2018, our revenue attributable to our collaboration and licensing arrangements with GSK accounted for 92% and 47%, respectively, of our total revenue.

GSK has recently informed us of changes to its plans with respect to the GSK ICO Agreement that we expect will materially affect the amounts we will receive from GSK under this agreement for the year ending December 31, 2018. In December 2017, GSK informed us of its modified plans under the GSK ICO Agreement that reduced its requirements and budget for our research and development support in 2018. Revenues from research and development services under the GSK ICO Agreement were $3.1 million and $0.2 million for the year ended December 31, 2017 and the three months ended March 31, 2018, respectively. We expect that such revenues will be less than $250,000 during 2018 as a result of GSK's modified plans. In response, in January 2018 we reduced our research and development workforce accordingly, and we anticipate that we will incur approximately $400,000 in expense relating to the modification. Further, in June 2018, GSK notified us of its intention to review continuation of development of an inhaled antiviral for viral exacerbations in chronic obstructive pulmonary disease, or COPD, part of the

GSK ICO Agreement, after completion of its related Phase 1 clinical trial. Such continuation is subject to GSK management approval. GSK continues to express an interest in using PRINT technology for new inhaled programs, though no specific assets have been identified at this time. We believe that GSK will likely not continue further development of the COPD program. We are evaluating whether we will incur any expenses relating to this modification.

As a result of these changes, we do not expect to receive any near-term revenue from GSK from our collaboration and licensing arrangements. We do not expect to generate comparable revenue from our other existing or future collaboration and licensing agreements in the near term, and we do not know if GSK will initiate development of a new program that will generate comparable revenue. In the event there are any further modifications to these arrangements, including if GSK exercises its right to terminate the ICO Agreement in its entirety or in respect of a particular product, or if GSK makes further changes to any existing development plans with us, we may not recognize the potential benefits of this collaboration.

Our credit facility with Pacific Western Bank, or PWB, contains operating and financial covenants that restrict our business and financing activities, and is subject to acceleration in specified circumstances, which may result in PWB taking possession and disposing of any collateral.

Our credit facility contains restrictions that limit our flexibility in operating our business. Under the terms of the loan and security agreement, or LSA, with PWB, pursuant to which PWB extended a $10.0 million term loan facility to us, we may not, among other things, without the prior written consent of PWB, (a) pay any dividends or make any other distribution or payment on account of or in redemption, retirement or purchase of any capital stock except in certain prescribed circumstances, (b) create, incur, assume, guarantee or be or remain liable with respect to any indebtedness except certain permitted indebtedness or prepay any indebtedness, (c) replace or suffer the departure of our Chief Executive Officer or Chief Financial Officer without delivering written notification to PWB within 10 days of such change or (d) suffer a change on our board of directors, or the Board, which results in the failure of at least one partner of either New Enterprise Associates or Canaan Partners or their respective affiliates to serve as a voting member. Our facility with PWB is secured by all of our assets excluding our intellectual property, on which we have granted a negative pledge.

We have, in the past, breached multiple covenants in our LSA related to cash levels, reporting requirements and required periodic deliverables to PWB, but have obtained waivers from PWB in relation to all such breaches. If we breach certain of our debt covenants and are unable to cure such breach within the prescribed period or are not granted waivers in relation to such breach, it may constitute an event of default under our facility agreements, giving lenders the right to require us to repay the then outstanding debt immediately, and the lenders could, among other things, foreclose on the collateral granted to them to collateralize such indebtedness, which excludes our intellectual property, if we are unable to pay the outstanding debt immediately. A breach of covenants and the acceleration of our repayment obligations by PWB could have a material adverse effect on our business, financial condition, results of operations and prospects.

We face significant competition from large pharmaceutical companies, among others, and our operating results will suffer if we are unable to compete effectively.

We face significant competition from industry players worldwide, including large multi-national pharmaceutical companies, other emerging or smaller pharmaceutical companies, as well as universities and other research institutions.

Many of our competitors have substantially greater financial, technical and other resources, such as a larger research and development staff, and more experience in manufacturing and marketing, than we do. As a result, these companies may obtain marketing approval for their product candidates more quickly than we are able to and be more successful in commercializing their products than us. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaboration arrangements

that they enter into with large, established companies. We may also face competition as a result of advances in the commercial applicability of new technologies and greater availability of capital for investment in such technologies. Our competitors may also invest heavily in the discovery and development of novel drug products that could make our product candidates less competitive or may file FDA citizen petitions which may delay the approval process for our product candidates.

Furthermore, our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, pharmaceutical products that are easier to develop, more effective or less costly than any product candidates that we are currently developing or that we may develop. Our competitors may also succeed in developing blocking patents to which we do not have a license.

Any new drug product that competes with a prior approved drug product must demonstrate advantages in safety, efficacy, tolerability or convenience in order to overcome price competition and to be commercially successful. Our approved products are expected to face competition from drug products that are already on the market, as well as those in our competitors' development pipelines. In particular, we expect that LIQ861 will face competition from Tyvaso®, and Ventavis®, which are existing drug products indicated for the treatment of PAH, potential new entrants such as Insmed Inc.'s INS-1009, as well as generic equivalents of Tyvaso following the expiry of Tyvaso's patent in 2018. We are aware that MannKind Corporation has recently filed an Investigational New Drug application, or IND, and completed a Phase 1 trial evaluating an inhaled dry powder treprostinil product for the treatment of PAH. We expect LIQ865 to face competition from EXPAREL®, an existing injectable version of bupivacaine. The early success of EXPAREL may make it difficult for us to convince physicians, patients and other members of the medical community to accept and use LIQ865 over EXPAREL. In addition, while EXPAREL is currently the only direct competitor to LIQ865 on the market, Durect Corporation, Innocoll Holdings plc and Heron Therapeutics, Inc. each have products in the pipeline that are potential competitors to LIQ865, which are estimated to enter the market in 2018 or 2019, and generic equivalents of EXPAREL may enter the market following the expiry of EXPAREL's patent in 2018. If we are unable to maintain our competitive position, our business and prospects will be materially and adversely affected. See "Business — Competition" for further details.

The pharmaceutical industry is subject to rapid technological change, which could affect the commercial viability of our products.

The pharmaceutical industry is subject to rapid and significant technological change. Research, discoveries or inventions by others may result in medical insights or breakthroughs which render our products less competitive or even obsolete. Furthermore, there may be breakthroughs of new pharmaceutical technologies which may become superior to our PRINT technology that may result in the loss of our commercial advantage. Our future success will, in part, depend on our ability to, among others:

- develop or license new technologies that address the changing needs of the medical community; and
- respond to technological advances and changing industry standards and practices in a cost-effective and timely manner.

Developing technology entails significant technical and business risks and substantial costs. We cannot assure you that we will be able to utilize new technologies effectively or that we will be able to adapt our existing technologies to changing industry standards in a timely or cost-effective manner, or at all. If we are unable to keep up with advancements in technology, our competitive position may suffer and our business and prospects may be materially and adversely affected.

Risks Related to our Business Operations

If we are unable to establish or maintain licensing and collaboration arrangements with other pharmaceutical companies on acceptable terms, or at all, we may not be able to develop and commercialize additional product candidates using our PRINT technology.

We have collaborated, and will continue to collaborate, with, among others, pharmaceutical companies such as GSK to expand the applications for our PRINT technology through licensing as well as joint product development arrangements. In addition, if we are able to obtain marketing approval for our product candidates from non-U.S. regulatory authorities, we intend to enter into strategic relationships with international collaborators for the commercialization of such products outside of the United States.

Collaboration and licensing arrangements are complex and time-consuming to negotiate, document, implement and maintain. We may not be successful in our efforts to establish collaboration or other alternative arrangements should we so choose to enter into such arrangements. In addition, the terms of any collaboration or other arrangements that we may enter into may not be favorable to us or may restrict our ability to enter into further collaboration or other arrangements with others. For example, collaboration agreements may contain exclusivity arrangements which limit our ability to work with other pharmaceutical companies to expand the applications for our PRINT technology, as in the case of our exclusivity arrangements with GSK.

If we are unable to establish licensing and collaboration arrangements or the terms of such agreements we enter into are unfavorable to us or restrict our ability to work with other pharmaceutical companies, we may not be able to expand the applications for our PRINT technology or commercialize our approved products, and our business and prospects may be materially and adversely affected.

Our collaboration and licensing arrangements may not be successful.

Our collaboration and licensing arrangements, as well as any future collaboration and licensing arrangements that we may enter into, may not be successful. The success of our collaboration and licensing arrangements will depend heavily on the efforts and activities of our collaborators, which are not within our control. We may, in the course of our collaboration and licensing arrangements, be subject to numerous risks, including, but not limited to, the following:

- our collaborators, including GSK, may have significant discretion in determining the efforts and resources that they will contribute;
- our collaborators, including GSK, may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing (for example, in June 2018, GSK notified us of its intention to review continuation of development of an inhaled antiviral for viral exacerbations in COPD, part of the GSK ICO Agreement, after completion of its related Phase 1 clinical trial, with such continuation subject to GSK management approval);
- our collaborators may independently, or in conjunction with others, develop products that compete directly or indirectly with our product candidates;
- we may grant exclusive rights to our collaborators that would restrict us from collaborating with others;
- our collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and our collaborators, which may cause a delay in or the termination of our research, development or commercialization activities;

- our collaboration and licensing arrangements may be terminated (for example, our development and licensing agreement with G&W Laboratories, Inc., which we mutually terminated in April 2018), and if terminated, may result in our need for additional capital to pursue further drug product development or commercialization;
- our collaborators may own or co-own certain intellectual property arising from our collaboration and licensing arrangements with them, which may restrict our ability to develop or commercialize such intellectual property; and
- our collaborators may alter the strategic direction of their business or may undergo a change of control or management, which may affect the success of our collaboration arrangements with them.

We depend on third parties for clinical and commercial supplies, including a single supplier for the active ingredient of LIQ861.

We depend on third-party suppliers for clinical and commercial supplies, including the active pharmaceutical ingredients which are used in our product candidates. These supplies may not always be available to us at the standards we require or on terms acceptable to us, or at all, and we may not be able to locate alternative suppliers in a timely manner, or at all. If we are unable to obtain necessary clinical or commercial supplies, our manufacturing operations and clinical trials and the clinical trials of our collaborators may be delayed or disrupted and our business and prospects may be materially and adversely affected as a result.

For example, we currently rely on a sole supplier, LGM Pharma, LLC, or LGM Pharma, for treprostinil, the active pharmaceutical ingredient of LIQ861. If LGM Pharma is unable to supply treprostinil to us in the quantities we require, or at all, or otherwise defaults on its supply obligations to us, or if it ceases its relationship with us, we may not be able to obtain alternative supplies of treprostinil from other suppliers on acceptable terms, in a timely manner, or at all. Furthermore, LIQ861 is administered using RS00 Model 8 DPI, a DPI manufactured by Plastiape S.p.A. We purchase treprostinil and our DPI supply pursuant to purchase orders and do not have long-term contracts with either supplier. In the event of any prolonged disruption to our supply of treprostinil or the manufacture and supply of RS00 Model 8 DPI, our ability to develop and commercialize, and the timeline for commercialization of, LIQ861 may be adversely affected.

Our operations are concentrated in Morrisville, North Carolina and interruptions due to natural disasters or other unforeseen events could materially and adversely affect our operations.

All of our current operations are concentrated in Morrisville, North Carolina. A fire, flood, hurricane, earthquake or other disaster or unforeseen event resulting in significant damage to our facilities could significantly disrupt or curtail or require us to cease our operations.

It would be difficult, costly and time-consuming to transfer resources from one facility to another or to repair or replace our facility in the event that it is significantly damaged. In addition, our insurance may not be sufficient to cover all of our losses and may not continue to be available to us on acceptable terms, or at all.

In addition, if one of our suppliers experiences a similar disaster or unforeseen event, we could face significant delays in obtaining our supplies or be required to source for supplies from an alternative supplier and may incur substantial costs as a result. Any significant uninsured loss, prolonged or repeated disruption to operations or inability to operate, experienced by us or by our suppliers could materially and adversely affect our business, financial condition and results of operations.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. From time to time and in the future, our operations may involve the use of hazardous

and flammable materials, including chemicals and biological materials, and may also produce hazardous waste products. Even if we contract with third parties for the disposal of these materials and waste products, we cannot completely eliminate the risk of contamination or injury resulting from these materials. In the event of contamination or injury resulting from the use or disposal of our hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

We maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, but this insurance may not provide adequate coverage against potential liabilities. However, we do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. Current or future environmental laws and regulations may impair our research, development or production efforts. In addition, failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions.

We may be exposed to claims and may not be able to obtain or maintain adequate product liability insurance.

Our business is exposed to the risk of product liability and other liability risks that are inherent in the development, manufacture, clinical testing and marketing of pharmaceutical products. These risks exist even if a product is approved for commercial sale by the FDA or comparable regulatory authorities in other countries and manufactured in licensed facilities. Our current product candidates, LIQ861 and LIQ865, are designed to affect important bodily functions and processes. Any side effects, manufacturing defects, misuse or abuse associated with our products could result in injury to a patient or even death.

Claims that are successfully brought against us could have a material and adverse effect on our financial condition and results of operations. Further, even if we are successful in defending claims brought against us, our reputation could suffer. Regardless of merit or eventual outcome, product liability claims may also result in, among others:

- a decreased demand for our products;
- a withdrawal or recall of our products from the market;
- a withdrawal of participants from our ongoing clinical trials;
- the distraction of our management's attention from our core business activities to defend such claims;
- additional costs to us; and
- a loss of revenue.

Our insurance may not provide adequate coverage against our potential liabilities. Furthermore, we, our collaborators or our licensees may not be able to obtain or maintain insurance on acceptable terms, or at all. In addition, our collaborators or licensees may not be willing to indemnify us against these types of liabilities and may not themselves be sufficiently insured or have sufficient assets to satisfy any product liability claims. To the extent that they are uninsured or uninsurable, claims or losses that may be suffered by us, our collaborators or our licensees may have a material and adverse effect on our financial condition and results of operations.

We depend on skilled labor, and our business and prospects may be adversely affected if we lose the services of our skilled personnel, including those in senior management, or are unable to attract new skilled personnel.

Our ability to continue our operations and manage our potential future growth depends on our ability to hire and retain suitably skilled and qualified employees, including those in senior management, in the long

term. Due to the specialized nature of our work, there is a limited supply of suitable candidates. We compete with other biotechnology and pharmaceutical companies, educational and research institutions and government entities, among others, for research, technical and clinical personnel. In addition, in order to manage our potential future growth effectively, we will need to improve our financial controls and systems and, as necessary, recruit sales, marketing, managerial and finance personnel. If we are unable to attract and retain skilled personnel, including those in senior management, including Neal Fowler, our Chief Executive Officer, and Kevin Gordon, our President and Chief Financial Officer, our business and prospects may be materially and adversely affected.

Our employees and our independent contractors, principal investigators, contract research organizations, or CROs, consultants or commercial collaborators, as well as their respective sub-contractors, if any, may engage in misconduct or fail to comply with certain regulatory standards and requirements, which could expose us to liability and adversely affect our reputation.

Our employees and our independent contractors, principal investigators, CROs, consultants or commercial collaborators, as well as their respective sub-contractors, if any, may engage in fraudulent conduct or other illegal activity, which may include intentional, reckless or negligent conduct that violates, among others, (a) FDA laws and regulations, or those of comparable regulatory authorities in other countries, including those laws that require the reporting of true, complete and accurate information to the FDA, (b) manufacturing standards, (c) healthcare fraud and abuse laws or (d) laws that require the true, complete and accurate reporting of financial information or data. For example, such persons may improperly use or misrepresent information obtained in the course of our clinical trials, create fraudulent data in our preclinical studies or clinical trials or misappropriate our drug products, which could result in regulatory sanctions being imposed on us and cause serious harm to our reputation. It is not always possible for us to identify or deter misconduct by our employees and third parties, and any precautions we may take to detect or prevent such misconduct may not be effective. Any misconduct or failure by our employees and our independent contractors, principal investigators, CROs, consultants or commercial collaborators, as well as their respective sub-contractors, if any, to comply with the applicable laws or regulations may expose us to governmental investigations, other regulatory action or lawsuits. If any action is instituted against us as a result of the alleged misconduct of our employees or other third parties, regardless of the final outcome, our reputation may be adversely affected and our business may suffer as a result. If we are unsuccessful in defending against any such action, we may also be liable to significant fines or other sanctions, which could have a material and adverse effect on us.

We may acquire businesses, products or product candidates, or form strategic alliances or create joint ventures, in the future, and we may not realize the benefits of such transactions.

We may acquire additional businesses, products or product candidates, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business, although we have no current agreements, commitments or understandings to do so. If we acquire businesses with promising markets or technologies, we may not be able to realize the benefit of acquiring such businesses if we are unable to successfully integrate them with our existing operations and company culture. We may encounter numerous difficulties in developing, manufacturing and marketing any new products or product candidates resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, strategic alliance or joint venture, we will achieve the expected synergies to justify the transaction.

System failures may disrupt our business operations and delay our product development programs and commercialization activities.

Our systems, including computer systems, and those of our collaborators, contractors and consultants are vulnerable to, among others, unauthorized access, equipment failure and damage from computer viruses as well as cyber hackers. In the event of a material system failure or security breach of, or significant damage to, our systems, our business operations may be disrupted, and our product development programs and

commercialization activities may be delayed. For example, failure of or damage to equipment leading to a loss of our clinical trial data could result in delays to the process of obtaining marketing approval for our product candidates, as well as significant and unexpected expenditure to recover or reproduce the lost data. To the extent that any disruption or damage to or security breach of the systems of our collaborators, contractors or consultants results in a loss of our data or applications, or the disclosure of our confidential information, our business may be adversely affected.

Risks Related to the Development and Commercialization of our Product Candidates

The marketing approval processes of the FDA and comparable regulatory authorities in other countries are unpredictable and our product candidates may be subject to multiple rounds of review or may not receive marketing approval.

We have not previously submitted an NDA to the FDA or similar drug approval filings to comparable regulatory authorities in other countries for any product candidate, and we cannot assure you that any of our product candidates will receive marketing approval.

Filing an application and obtaining marketing approval for a pharmaceutical product candidate is an extensive, lengthy, expensive and inherently uncertain process, and regulatory authorities may delay, limit or deny approval of our product candidates for many reasons, including, but not limited to, the following:

- the FDA or comparable regulatory authorities in other countries may refuse to file an NDA or similar drug approval filing if they deem the application to be incomplete;
- the FDA or comparable regulatory authorities in other countries may disagree with the design, scope or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable regulatory authorities in other countries that our product candidate is safe and effective for its proposed indication, or that its clinical and other benefits outweigh its safety risks;
- the results of our clinical trials may not meet the level of statistical significance required by the FDA or comparable regulatory authorities in other countries;
- the FDA or comparable regulatory authorities in other countries may disagree with the number, design, size, conduct or statistical analysis of one or more of our clinical trials;
- the FDA or comparable regulatory authorities in other countries may disagree with our interpretation of data from our preclinical studies or clinical trials;
- the data collected from our clinical trials may not be sufficient to support the submission of an NDA or similar drug approval filing to the FDA or comparable regulatory authorities in other countries;
- the FDA or comparable regulatory authorities in other countries may not approve of our manufacturing processes or facilities or those of our third-party manufacturers, which would be required to be corrected prior to marketing approval;
- the FDA or comparable regulatory authorities in other countries may require development of a costly and extensive risk evaluation and mitigation strategy, or REMS, as a condition of approval;
- the success or further approval of competing products approved in indications similar to those of our product candidates may change the standards for approval of our product candidates in their proposed indications; and
- the approval policies of the FDA or comparable regulatory authorities in other countries may change in a manner that renders our clinical data insufficient for approval.

In addition, the FDA or comparable regulatory authorities in other countries may, in their sole discretion, change their views in respect of regulatory pathways they had previously affirmed or clinical trial protocols they were previously not opposed to. While we have consulted with the FDA on the appropriate regulatory pathway and clinical trial protocols for our product candidates, LIQ861 and LIQ865, we cannot assure you that the FDA will not revise their position significantly at a later date. In the event that this occurs, the clinical development and commercialization of our product candidates may be delayed or even derailed.

Even if we obtain marketing approval, the FDA or comparable regulatory authorities in other countries may approve our product candidates for fewer or more limited indications than what we requested approval for, or may include safety warnings or other restrictions that may negatively impact the commercial viability of our product candidates. Likewise, regulatory authorities may grant approval contingent on the performance of costly post-marketing clinical trials or the conduct of an expensive REMS, which could significantly reduce the potential for commercial success or viability of our product candidates. We also may not be able to find acceptable collaborators to manufacture our approved drug products in commercial quantities and at acceptable prices, or at all.

We may be unable to continually develop a pipeline of product candidates, which could affect our business and prospects.

A key element of our long-term strategy is to continually develop a pipeline of product candidates by developing proprietary innovations to FDA-approved drug products using our PRINT technology. If we are unable to identify off-patent drug products that we can develop proprietary innovations using our PRINT technology or otherwise expand our product candidate pipeline, whether through licensed or co-development opportunities, and obtain marketing approval for such product candidates within the timeframes that we anticipate, or at all, our business and prospects may be materially and adversely affected.

Our preclinical studies and clinical trials may not be successful and delays to such preclinical studies or clinical trials may cause our costs to increase and significantly impair our ability to commercialize our product candidates. Results of previous clinical trials or interim results of ongoing clinical trials may not be predictive of future results.

Before we are able to commercialize our drug products, we are required to undertake extensive preclinical studies and clinical trials to demonstrate that our drug products are safe and effective for their intended uses. However, we cannot assure you that our drug products will, in preclinical studies and clinical trials, demonstrate the safety and efficacy traits necessary to obtain marketing approval. Due to the nature of drug product development, many product candidates, especially those in early stages of development, may be terminated during development. We have not successfully completed the clinical development of any of our product candidates and, accordingly, do not have a track record of successfully bringing product candidates to market. Furthermore, LIQ861 and LIQ865 have, to date, been tested only in relatively small study populations and, accordingly, the results from our earlier clinical trials may be less reliable than results achieved in larger clinical trials. Additionally, the outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and preliminary and interim results of a clinical trial do not necessarily predict final results.

Preclinical studies and clinical trials may fail due to factors such as flaws in trial design, dose selection and patient enrollment criteria. The results of preclinical studies and early clinical trials may not be indicative of the results of subsequent clinical trials. Product candidates may, in later stages of clinical testing, fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and earlier clinical trials. Moreover, there may be significant variability in safety or efficacy results between different trials of the same product candidate due to factors including, but not limited to, changes in trial protocols, differences in the composition of the patient population, adherence to the dosing regimen and other trial protocols and the rate of drop-out among patients in a clinical trial. If our preclinical studies or clinical trials are not successful and we are unable to bring our product candidates to market as a result, our business and prospects may be materially and adversely affected.

Furthermore, conducting preclinical studies and clinical trials is a costly and time-consuming process. The length of time required to conduct the required studies and trials may vary substantially according to the type, complexity, novelty and intended use of the product candidate. A single clinical trial may take up to several years to complete. Moreover, our preclinical studies and clinical trials may be delayed or halted due to various factors, including, among others:

- § delays in raising the funding necessary to initiate or continue a clinical trial;

- delays in manufacturing sufficient quantities of product candidates for clinical trials;
- delays in reaching agreement on acceptable terms with prospective contract research organizations and clinical trial sites;
- delays in obtaining institutional review board approval at clinical trial sites;
- delays in recruiting suitable patients to participate in a clinical trial;
- delays in patients' completion of clinical trials or their post-treatment follow up;
- regulatory authorities' interpretation of our preclinical and clinical data; and
- unforeseen safety issues, including a high and unacceptable severity, or prevalence, of undesirable side effects or adverse events caused by our product candidates or similar drug products or product candidates.

If our preclinical studies or clinical trials are delayed, the commercialization of our product candidates will be delayed and as a result, we may incur substantial additional costs or not be able to recoup our investment in the development of our product candidates, which would have a material and adverse effect on our business.

We are planning to pursue the FDA 505(b)(2) pathway for all of our current product candidates. If we are unable to rely on the 505(b)(2) regulatory pathway to apply for marketing approval of our product candidates in the United States, seeking approval of these product candidates through the 505(b)(1) new drug application, or NDA, pathway would require full reports of investigations of safety and effectiveness, and the process of obtaining marketing approval for our product candidates would likely be significantly longer and more costly.

Our business model is to develop our own drug products in addition to collaborating with, among others, pharmaceutical companies such as GSK to develop drug products. We are currently focused on developing drug products that can be approved under abbreviated regulatory pathways in the United States, such as the 505(b)(2) regulatory pathway, which permits the filing of an NDA where at least some of the information required for approval comes from studies that were not conducted by or for the applicant and for which the applicant has not obtained a right of reference. Section 505(b)(2), if applicable to us, would allow an NDA we submit to the FDA to rely in part on data in the public domain or the FDA's prior conclusions regarding the safety and effectiveness of approved compounds, which could expedite the development program for a product candidate by potentially decreasing the amount of clinical data that we would need to generate in order to obtain FDA approval. We plan to pursue this pathway for our current product candidates. Even if the FDA allows us to rely on the 505(b)(2) regulatory pathway, we cannot assure you that such marketing approval will be obtained in a timely manner, or at all.

The FDA may require us to perform additional clinical trials to support any change from the reference listed drug, which could be time-consuming and substantially delay our receipt of marketing approval. Also, as has been the experience of others in our industry, our competitors may file citizens' petitions with the FDA to contest approval of our NDA, which may delay or even prevent the FDA from approving any NDA that we submit under the 505(b)(2) regulatory pathway. If an FDA decision or action relative to our product candidate, or the FDA's interpretation of Section 505(b)(2) more generally, is successfully challenged, it could result in delays or even prevent the FDA from approving a 505(b)(2) application for our product candidates. Even if we are able to utilize the 505(b)(2) regulatory pathway, a drug approved via this pathway may be subject to the same post-approval limitations, conditions and requirements as any other drug.

In addition, we may face patent infringement lawsuits in relation to our NDAs submitted under the 505(b)(2) regulatory pathway, which may further delay or prevent the review or approval of our product candidates. The pharmaceutical industry is highly competitive, and 505(b)(2) NDAs are subject to special requirements designed to protect the patent rights of sponsors of previously approved drugs that are referenced in a 505(b)(2) NDA. A claim by the applicant that a patent is invalid or will not be infringed is subject to challenge by the patent holder, requirements may give rise to patent litigation and mandatory

30-month delays in approval of a 505(b)(2) application. It is not uncommon for a manufacturer of an approved product to file a citizen petition with the FDA seeking to delay approval of, or impose additional approval requirements for, pending competing products. If successful, such petitions can significantly delay, or even prevent, the approval of the new product. However, even if the FDA ultimately denies such a petition, the FDA may substantially delay approval while it considers and responds to the petition.

If the FDA determines that our product candidates do not qualify for the 505(b)(2) regulatory pathway, we would need to reconsider our plans and might not be able to commercialize our product candidates in a cost-efficient manner, or at all. If we were to pursue approval under the 505(b)(1) NDA pathway, we would be subject to more extensive requirements and risks such as conducting additional clinical trials, providing additional data and information or meeting additional standards for marketing approval. As a result, the time and financial resources required to obtain marketing approval for our product candidates would likely increase substantially and further complications and risks associated with our product candidates may arise. Also, new competing products may reach the market faster than ours, which may materially and adversely affect our competitive position, business and prospects.

Product candidates that the FDA deems to be combination products, such as LIQ861, or that otherwise rely on innovative drug delivery systems, may face additional challenges, risks and delays in the product development and regulatory approval process.

The FDA has indicated that it considers LIQ861, which is delivered by a DPI, to be a drug-device combination product and, accordingly, the DPI will be evaluated as part of our NDA filing. When evaluating products that utilize a specific drug delivery system or device, the FDA will evaluate the characteristics of that delivery system and its functionality, as well as the potential for undesirable interactions between the drug and the delivery system, including the potential to negatively impact the safety or effectiveness of the drug. The FDA review process can be more complicated for combination products, and may result in delays, particularly if novel delivery systems are involved. We rely on third parties for the design and manufacture of the delivery systems for our products, including the DPI for LIQ861, and in some cases for the right to refer to their data on file with the FDA or other regulators. Quality or design concerns with the delivery system, or commercial disputes with these third parties, could delay or prevent regulatory approval and commercialization of our product candidates.

Our product candidates are based on our proprietary, novel technology, PRINT, which makes it difficult to predict the time and cost of development and of subsequently obtaining regulatory approval.

Our future success depends on the successful development of our PRINT technology and products based on it, including LIQ861 and, to a lesser degree, LIQ865. To our knowledge, no regulatory authority has granted approval to any person or entity, including us, to market and commercialize drugs using our novel delivery system. We may never receive approval to market and commercialize any product candidate that uses PRINT.

We may encounter difficulties in enrolling patients in our clinical trials.

We may not be able to commence or complete clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials.

Patient enrollment may be affected by, among others:

- the severity of the disease under investigation;
- the design of the clinical trial protocol;
- the size and nature of the patient population;
- eligibility criteria for the clinical trial in question;
- the perceived risks and benefits of the product candidate under clinical testing, including a high and unacceptable severity, or prevalence, of undesirable side effects or adverse events caused by our product candidates or similar products or product candidates;

- the existing body of safety and efficacy data in respect of the product candidate under clinical testing;
- the proximity of patients to clinical trial sites; and
- the number and nature of competing therapies and clinical trials.

Any negative results we may report in clinical trials of our product candidates may also make it difficult or impossible to recruit and retain patients in other clinical trials of that same product candidate.

In particular, we will be required to identify and enroll a sufficient number of patients with PAH for the Phase 3 clinical trial of LIQ861. PAH is a rare disease with a relatively small patient population, and our enrollment of clinical trial participants may be slow as a result. Furthermore, we are aware of a number of therapies for PAH that are being developed or that are already available on the market, and we expect to face competition from these investigational drugs or approval drugs for potential subjects in our clinical trials, which may delay enrollment in our planned clinical trials.

Delays or failures in planned patient enrollment or retention may result in increased costs, program delays, or both. We may, as a result of such delays or failures, be unable to carry out our clinical trials as planned or within the timeframe that we expect or at all, and our business and prospects may be materially and adversely affected as a result.

If a competitor obtains orphan drug designation from the FDA for the same drug and same indication as we are seeking for a product candidate, and then obtains approval of that drug for that condition before we do, the resulting FDA exclusivity would significantly delay our ability to commercialize that product candidate.

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition—generally a disease or condition that affects fewer than 200,000 individuals in the United States or that affects more than 200,000 individuals in the United States and for which there is no reasonable expectation that costs of research and development of the drug for the indication can be recovered by sales of the drug in the United States. Orphan drug designation must be requested before submitting an NDA.

After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. The first applicant to receive FDA approval for a particular active ingredient to treat a particular disease or condition with orphan drug designation is entitled to a seven-year exclusive marketing period in the United States for that product in that indication. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the NDA application user fee.

During the exclusivity period, the FDA may not approve any other applications to market the same drug for the same disease or condition, except in limited circumstances, such as if the second applicant demonstrates the clinical superiority of its product to the product with orphan drug exclusivity through a demonstration of superior safety, superior efficacy or a major contribution to patient care, or if the manufacturer of the product with orphan exclusivity is not able to assure sufficient quantities of the product. "Same drug" means a drug that contains the same identity of the active moiety if it is a drug composed of small molecules, or of the principal molecular structural features if it is composed of macromolecules and is intended for the same use as a previously approved drug, except that if the subsequent drug can be shown to be clinically superior to the first drug, it will not be considered to be the same drug. Drug exclusivity does not prevent the FDA from approving a different drug for the same disease or condition, or the same drug for a different disease or condition.

We have conducted, and may in the future conduct, clinical trials for our product candidates outside the United States and the FDA may not accept data from such trials.

Although the FDA may accept data from clinical trials conducted outside the United States in support of safety and efficacy claims for our product candidates, if not conducted under an IND, this is subject to certain conditions set out in 21 C.F.R. § 312.120. For example, in order for the FDA to accept data from such a foreign clinical trial, the study must have been conducted in accordance with Good Clinical Practice, or GCP, including review and approval by an independent ethics committee and obtaining the informed consent from subjects of the clinical trials. The FDA must also be able to validate the data from the study through an onsite inspection if the agency deems it necessary. In addition, foreign clinical data submitted to support FDA applications should be applicable to the U.S. population and U.S. medical practice. Other factors that may affect the acceptance of foreign clinical data include differences in clinical conditions, study populations or regulatory requirements between the United States and the foreign country.

We conducted the early Phase 1a clinical trial of LIQ865 in Denmark, and not under an IND, and may, in the future, conduct the clinical trials of our product candidates outside the United States. The FDA may not accept such foreign clinical data, and in such event, we may be required to re-conduct the relevant clinical trials within the United States, which would be costly and time-consuming, and which could have a material and adverse effect on our ability to carry out our business plans.

We rely on third parties to conduct our preclinical studies and clinical trials.

We currently rely on, and plan to continue to rely on, third-party CROs to monitor and manage data for our preclinical studies and clinical trials. However, we are responsible for ensuring that each of our trials is conducted in accordance with the applicable regulatory standards and our reliance on CROs does not relieve us of our regulatory responsibilities.

The CROs on which we rely are required to comply with FDA regulations (and the regulations of comparable regulatory authorities in other countries) regarding GCP. Regulatory authorities enforce GCP standards through periodic inspections. If any of the CROs on which we rely fail to comply with the applicable GCP standards, the clinical data generated in our clinical trials may be deemed unreliable. While we have contractual agreements with these CROs, we have limited influence over their actual performance and cannot control whether or not they devote sufficient time and resources to our preclinical studies and clinical trials. A failure to comply with the applicable regulations in the conduct of the preclinical studies and clinical trials for our product candidates may require us to repeat such studies or trials, which would delay the process of obtaining marketing approval for our product candidates and have a material and adverse effect on our business and prospects.

Some of our CROs have the ability to terminate their respective agreements with us if, among others, it can be reasonably demonstrated that the safety of the patients participating in our clinical trials warrants such termination. If any of our agreements with our CROs is terminated, and if we are not able to enter into agreements with alternative CROs on acceptable terms or in a timely manner, or at all, the clinical development of our product candidates may be delayed and our development expenses could be increased.

Our facilities are subject to extensive and ongoing regulatory requirements and failure to comply with these regulations may result in significant liability.

Our company and our facilities are subject to payment of fees, ongoing review and periodic inspections by the FDA and other regulatory authorities for compliance with quality system regulations, including the FDA's current good manufacturing practices, or cGMP, requirements. These regulations cover all aspects of the manufacturing, testing, quality control and record-keeping of our drug products. Furthermore, the facilities where our product candidates are manufactured may be subject to inspection by the FDA before we can obtain marketing approval and remain subject to periodic inspection even after our product candidates have received marketing approval. Suppliers of components and materials such as active pharmaceutical

ingredients, used to manufacture our drug products are also required to comply with the applicable regulatory standards.

The manufacture of pharmaceutical products is complex and requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. We and any contract manufacturers that we may engage in the future must comply with cGMP requirements. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling up and validating initial production and contamination controls. These problems include difficulties with production costs and yields, quality control, including stability of the product, quality assurance testing, operator error, shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations. Furthermore, if microbial, viral or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.

Compliance with these regulatory standards often requires significant expense and effort. If we or our suppliers are unable to comply with the applicable regulatory standards or take satisfactory corrective steps in response to adverse results of an inspection, this could result in enforcement action, including, among others, the issue of a public warning letter, a shutdown of or restrictions on our or our suppliers' manufacturing operations, delays in approving our drug products and refusal to permit the import or export of our drug products. Any adverse regulatory action taken against us could subject us to significant liability and harm our business and prospects.

Our current pipeline product candidates, LIQ861 and LIQ865, require extensive clinical data analysis, regulatory review and additional testing. Clinical trials and data analysis can be very expensive, time-consuming and difficult to design and implement. If we are unsuccessful in obtaining regulatory approval for LIQ861 or LIQ865, or any of our product candidates do not provide positive results, we may be required to delay or abandon development of such product, which would have a material adverse impact on our business.

Continuing product development requires additional and extensive clinical testing. Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time-consuming. We cannot provide any assurance or certainty regarding when we might receive regulatory approval for LIQ861 or LIQ865. Furthermore, failure can occur at any stage of the process, and we could encounter problems that cause us to abandon an NDA filed with the FDA or repeat clinical trials. The commencement and completion of clinical trials for any current or future development product candidate may be delayed by several factors, including:

- unforeseen safety issues;
- determination of dosing issues;
- lack of effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

In addition, the FDA or an independent institutional review board, or IRB, may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in our IND submissions or the conduct of these trials. Therefore, we cannot provide any assurance or predict with certainty the schedule for future clinical trials. In the event we do not ultimately receive regulatory approval for LIQ861 and LIQ865, we may be required to terminate development of our only product candidates.

Our product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial potential or result in significant negative consequences following any potential marketing approval.

If our product candidates are associated with undesirable side effects or have characteristics that are unexpected, we may need to abandon our development or limit development to certain uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. Any serious adverse or undesirable side effects identified during the development of our product candidates, could interrupt, delay or halt clinical trials and could result in the denial of regulatory approval by the FDA or other regulatory authorities for any or all targeted indications, and in turn prevent us from commercializing our product candidates and generating revenues from their sale. In addition, if any of our product candidates receive regulatory approval and we or others later identify undesirable adverse effects caused by the product, we could face one or more of the following consequences:

- regulatory authorities may require the addition of labeling statements, such as a boxed warning or a contraindication, or other safety labeling changes;
- regulatory authorities may require a REMS;
- regulatory authorities may withdraw their approval of the product;
- regulatory authorities may seize the product;
- we may be required to change the way that the product is administered, or conduct additional clinical trials or we may need to recall the product;
- we may be subject to litigation or product liability claims fines, injunctions or criminal penalties; and
- our reputation may suffer.

Even if we obtain marketing approval for our product candidates in the United States, we or our collaborators may not obtain marketing approval for the same product candidates elsewhere.

We may enter into strategic collaboration arrangements with third parties to commercialize our product candidates outside of the United States. In order to market any product candidate outside of the United States, we or our collaborators will be required to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Clinical trials conducted in one country may not be recognized or accepted by regulatory authorities in other countries, and obtaining marketing approval in one country does not mean that marketing approval will be obtained in any other country. Approval processes vary among countries and additional product testing and validation, or additional administrative review periods, may be required from one country to the next.

Seeking marketing approval in countries other than the United States could be costly and time-consuming, especially if additional preclinical studies or clinical trials are required to be conducted. We currently do not have any product candidates approved for sale in any jurisdiction, including non-U.S. markets, and we do not have the experience in obtaining marketing approval in non-U.S. markets. We currently also have not identified any collaborators to market our products outside of the United States and cannot assure you that such collaborators, even if identified, will be able to successfully obtain marketing approval for our product candidates outside of the United States. If we or our collaborators fail to obtain marketing approval in non-U.S. markets, or if such approval is delayed, our target market may be reduced, and our ability to realize the full market potential of our products will be adversely affected.

The terms of approvals, ongoing regulations and post-marketing restrictions for our products may limit how we manufacture and market our products, which could materially impair our ability to generate revenue.

Once marketing approval has been granted, an approved product and its manufacturer and marketer are subject to ongoing review and extensive regulation. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling and regulatory requirements. The FDA imposes stringent

restrictions on manufacturers' communications regarding off-label use, and if we do not restrict the marketing of our products only to their approved indications, we may be subject to enforcement action for off-label marketing. We and any potential collaborators we may have in the future, must therefore comply with requirements concerning advertising and promotion for any of our products for which we or our collaborators obtain marketing approval. Thus, if either of our current product candidates receive marketing approval, the accompanying label may limit the approved use of our product, which could limit sales of the product.

In addition, manufacturers of approved products and those manufacturers' facilities are required to comply with extensive FDA requirements, such as ensuring that quality control and manufacturing procedures conform to cGMP applicable to drug manufacturers, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation and reporting requirements. We, any contract manufacturers we may engage in the future, our future collaborators, licensees and their contract manufacturers will also be subject to other regulatory requirements, including submissions of safety and other post-marketing information and reports, registration and listing requirements, requirements regarding the distribution of samples to clinicians, recordkeeping and costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product such as the requirement to implement a risk evaluation and mitigation strategy.

Our products may not achieve market acceptance.

Our business model is to develop our own drug products in addition to collaborating with, among others, pharmaceutical companies such as GSK to develop drug products. We are currently focused on developing drug products that can be approved under abbreviated regulatory pathways in the United States, such as the 505(b)(2) regulatory pathway, which allows us to rely on existing knowledge of the safety and efficacy of the relevant reference listed drugs to support our applications for approval in the United States. While we believe that it will be less difficult for us to convince physicians, patients and other members of the medical community to accept and use our drug products as compared to entirely new drugs, our drug products may nonetheless fail to gain sufficient market acceptance by physicians, patients, other healthcare providers and third-party payors. If any of our drug products fail to achieve sufficient market acceptance, we may not be able to generate sufficient revenue to become profitable. The degree of market acceptance of our drug products, if and when they are approved for commercial sale, will depend on a number of factors, including but not limited to:

- the timing of our receipt of marketing approvals, the terms of such approvals and the countries in which such approvals are obtained;
- the safety, efficacy, reliability and ease of administration of our drug products;
- the prevalence and severity of undesirable side effects and adverse events;
- the extent of the limitations or warnings required by the FDA or comparable regulatory authorities in other countries to be contained in the labeling of our drug products;
- the clinical indications for which our drug products are approved;
- the availability and perceived advantages of alternative therapies;
- any publicity related to our drug products or those of our competitors;
- the quality and price of competing drug products;
- our ability to obtain third-party payor coverage and sufficient reimbursement;
- the willingness of patients to pay out of pocket in the absence of third-party payor coverage; and
- the selling efforts and commitment of our commercialization collaborators.

If our approved drug products fail to receive a sufficient level of market acceptance, our ability to generate revenue from sales of our drug products will be limited, and our business and results of operations may be materially and adversely affected.

The commercial success of our drug products depends on the availability and sufficiency of third-party payor coverage and reimbursement.

Patients in the United States and elsewhere generally rely on third-party payors to reimburse part or all of the costs associated with their prescription drugs. Accordingly, market acceptance of our drug products is dependent on the extent to which third-party coverage and reimbursement is available from government health administration authorities (including in connection with government healthcare programs, such as Medicare and Medicaid in the United States), private healthcare insurers and other healthcare funding organizations.

Significant uncertainty exists as to the coverage and reimbursement status of any drug products for which we may obtain regulatory approval. Coverage decisions may not favor new drug products when more established or lower-cost therapeutic alternatives are already available. Even if we obtain coverage for a given drug product, the associated reimbursement rate may not be adequate to cover our costs, including research, development, intellectual property, manufacture, sale and distribution expenses, or may require co-payments that patients find unacceptably high. Patients are unlikely to use our products unless reimbursement is adequate to cover all or a significant portion of the cost of our drug products.

Coverage and reimbursement policies for drug products can differ significantly from payor to payor as there is no uniform policy of coverage and reimbursement for drug products among third-party payors in the United States. There may be significant delays in obtaining coverage and reimbursement as the process of determining coverage and reimbursement is often time-consuming and costly which will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage or adequate reimbursement will be obtained. It is difficult to predict at this time what government authorities and third-party payors will decide with respect to coverage and reimbursement for our drug products.

The market for our product candidates will depend significantly on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. Competition to be included in such formularies often leads to downward pricing pressures. In particular, third-party payors may refuse to include a particular reference listed drug in their formularies or otherwise restrict patient access to a reference listed drug when a less costly generic equivalent or other alternative is available. In particular, given that several therapeutically similar drug products to LIQ861, including oral and parenteral prostacyclins, are available on the market, managed care organizations may minimize the utilization of a new to market product and accordingly, we expect that LIQ861, if and when it is approved, will operate in a highly cost-constrained environment. Similarly, as there are a number of generic and branded therapeutic alternatives to LIQ865 in the post-operative pain market, there is a significant risk that we may not be placed on the formularies of key institutions and/or receive favorable reimbursement for LIQ865, if and when it is approved.

The U.S. government, state legislatures and foreign governmental entities have shown significant interest in implementing cost containment programs to limit the growth of government-paid healthcare costs, including price controls, restrictions on reimbursement and coverage and requirements for substitution of generic products for branded prescription drugs. Adoption of government controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could exclude or limit our drugs products from coverage and limit payments for pharmaceuticals.

In addition, we expect that the increased emphasis on managed care and cost containment measures in the United States by third-party payors and government authorities to continue and will place pressure on pharmaceutical pricing and coverage. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more drug products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

If we are unable to obtain and maintain sufficient third-party coverage and adequate reimbursement for our drug products, the commercial success of our drug products may be greatly hindered and our financial condition and results of operations may be materially and adversely affected.

Our products may be subject to reduced prices negotiated by certain group purchasing organizations that could adversely impact our product revenue.

Our customers may organize with each other or with third parties, such as distributors, manufacturers or hospitals, to negotiate prices that are lower than we may have been able to obtain from each of them individually. In such event, our ability to generate any product revenue, and consequently, our results of operations may be materially and adversely affected.

We may not be able to build our marketing and sales capabilities or enter into agreements with third parties to market and sell our drug products.

In order to market and sell any of our approved drug products, we will be required to build our marketing and sales capabilities. We cannot assure you that we will be successful in doing so or be able to do so in a cost-effective manner. In addition, we may enter into collaboration arrangements with third parties to market our drug products outside of the United States. We may face significant competition for collaborators. In addition, collaboration arrangements may be time-consuming to negotiate and document. We cannot assure you that we will be able to negotiate collaborations for the marketing and sales of our drug products outside of the United States on acceptable terms, or at all. Even if we do enter into such collaborations, we cannot assure you that our collaborators will be successful in commercializing our products. If we or our collaborators are unable to successfully commercialize our drug products whether in the United States or elsewhere, our business and results of operations may be materially and adversely affected.

The off-label use or misuse of our products may harm our image in the marketplace, result in injuries that lead to costly product liability suits, or result in costly investigations and regulatory agency sanctions under certain circumstances if we are deemed to have engaged in the promotion of these uses, any of which could be costly to our business.

We are developing LIQ861 for the treatment of PAH and LIQ865 for the treatment of local post-operative pain. If our product candidates are cleared by the FDA for these specific indications, we may only promote or market our product candidates for their specifically cleared or approved indications. We will train our marketing and sales force against promoting our product candidates for uses outside of the cleared or approved indications for use, known as "off-label uses." We cannot, however, prevent a physician from using our products off-label, when in the physician's independent professional medical judgment he or she deems it appropriate. There may be increased risk of injury to patients if physicians attempt to use our products for these uses for which they are not approved. Furthermore, the use of our products for indications other than those approved by the FDA may not effectively treat such conditions, which could harm our reputation in the marketplace among physicians and patients.

If the FDA determines that our promotional materials or training constitute promotion of an off-label or other improper use, it could request that we modify our training or promotional materials, or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine or criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our business activities to constitute promotion of an off-label use, which could result in significant penalties, including, but not limited to, criminal, civil or administrative penalties, damages, fines, disgorgement, exclusion from participation in government healthcare programs and the curtailment of our operations.

These regulations or codes may limit our ability to effectively market our products, or we could run afoul of the requirements imposed by these regulations, causing reputational harm and impose potentially substantial costs on us.

Even if we obtain regulatory approval for a product candidate, our products and business will remain subject to ongoing regulatory obligations and review.

If our product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies and submission of safety, efficacy and other post-market information, including both federal and state requirements in the United States and comparable requirements outside of the United States. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

Any regulatory approvals that we receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a REMS as a condition of approval of our product candidates, which could include requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. We will also be required to report certain adverse reactions and production problems, if any, to the FDA or other regulatory agencies and to comply with requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved label. As such, we may not promote our products for indications or uses for which they do not have FDA or other regulatory agency approval. The holder of an approved NDA must also submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling, or manufacturing process. We could also be asked to conduct post-marketing clinical studies to verify the safety and efficacy of our product candidates in general or in specific patient subsets. An unsuccessful post-marketing study or failure to complete such a clinical study could result in the withdrawal of marketing approval. Furthermore, any new legislation addressing drug safety issues could result in delays in product development or commercialization or increased costs to assure compliance. Foreign regulatory authorities impose similar requirements. If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or disagrees with the promotion, marketing or labeling of a product, such regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may, among other things:

- issue warning letters asserting that we are in violation of the law;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any of our ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications submitted by us or our strategic partners;
- restrict the marketing or manufacturing of our products;
- seize or detain products, or require a product recall;
- refuse to permit the import or export of our product candidates; or
- refuse to allow us to enter into government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. Any failure to comply with ongoing regulatory

requirements may significantly and adversely affect our ability to commercialize and generate revenue from our product candidates. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

We also cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business, prospects, financial condition and results of operations.

If our product candidates are approved for commercialization outside of the United States, we may be exposed to a number of risks associated with international business operations.

If our product candidates are approved for commercialization outside of the United States, we may market our approved drug products ourselves, or we may enter into agreements with third parties to market the aforesaid drug products outside of the United States. In such event, we may be subject to risks related to international business operations, including, but not limited to:

- varying levels of protection for intellectual property rights;
- changes in tariffs and the imposition of trade barriers;
- economic weakness, including inflation or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws in respect of employees living or traveling abroad;
- foreign tax laws;
- currency fluctuations; and
- business interruptions resulting from geopolitical actions, such as wars and terrorist attacks, among others, or natural disasters, such as fires, floods, earthquakes and hurricanes, among others.

If the FDA or comparable regulatory authorities in other countries approve generic versions of our product candidates, or do not grant our product candidates a sufficient period of market exclusivity before approving their generic versions, our ability to generate revenue may be adversely affected.

Once an NDA is approved, the drug product covered will be listed as a reference listed drug in the FDA's Orange Book. In the United States, manufacturers of drug products may seek approval of generic versions of reference listed drugs through the submission of abbreviated new drug applications, or ANDAs. In support of an ANDA, a generic manufacturer is generally required to show that its product has the same active pharmaceutical ingredient(s), dosage form, strength, route of administration and conditions of use or labelling as the reference listed drug and that the generic version is bioequivalent to the reference listed drug. Generic drug products may be significantly less expensive to bring to market than the reference listed drug, and companies that produce generic drug products are generally able to offer them at lower prices. Thus, following the introduction of a generic drug product, a significant percentage of the sales of any reference listed drug may be lost to the generic drug product.

The FDA will not approve an ANDA for a generic drug product until the applicable period of market exclusivity for the reference listed drug has expired. The applicable period of market exclusivity varies depending on the type of exclusivity granted. A grant of market exclusivity is separate from the existence of patent protection and manufacturers may seek to launch generic versions of our drug products following the expiry of their respective marketing exclusivity periods, even if our drug products are still under patent protection at the relevant time.

Any competition that our product candidates may face, if and when such product candidates are approved for marketing and commercialized, from generic versions could substantially limit our ability to realize a return on our investment in the development of our product candidates and have a material and adverse effect on our business and prospects.

Our drug products may be subject to recalls, withdrawals, seizures or other enforcement actions by the FDA or comparable regulatory authorities in other countries if we fail to comply with regulatory requirements or previously unknown problems with our drug products are discovered after they reach the market.

The FDA or comparable regulatory authorities in other countries may withdraw approval of our drug products if we fail to maintain compliance with regulatory requirements or if problems occur after our drug products reach the market. The discovery of previously unknown problems with a drug product, including adverse events of unanticipated severity or frequency, problems with manufacturing processes or failure to comply with regulatory requirements, including the requirement to promote a drug product only for its approved indications and in accordance with the provisions of its approved label, may result in, among others:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of the product; or
- injunctions or the imposition of civil or criminal penalties.

In the event that our drug products are subject to recalls, withdrawals, seizures or other enforcement actions by the FDA or comparable regulatory authorities, our reputation and demand for our drug products could be materially and adversely affected. In addition, we may incur significant and unexpected expenditure and management attention may be diverted in connection with any such recall, withdrawal, seizure or other enforcement action or any corrective action required to be taken, which could have a material and adverse impact on our business and financial condition.

We may not be able to respond effectively to changing consumer preferences and demand.

Our success depends, in part, on our ability to anticipate and respond to changing consumer trends and preferences in the pharmaceutical industry. We may not be able to respond to these changes in a timely or commercially effective manner or at all. Our failure to accurately predict these trends could negatively impact our inventory levels, sales and reputation. The commercial success of our drug products will depend upon a number of factors, including our ability to, among others:

- anticipate consumers' therapeutic needs;
- innovate, develop and commercialize new drug products in a timely manner;
- competitively price our drug products;
- procure and maintain our drug products in sufficient volumes and in a timely manner; and
- differentiate our drug products from those of our competitors.

If we are unable to introduce new drug products, develop improvements to our existing drug products or maintain the appropriate inventory levels to meet our customers' demand in a timely manner or at all, our business and prospects could be materially and adversely affected.

We may not be able to engage third-party contract manufacturing organizations, or CMOs, to manufacture our approved drug products on a commercial scale to meet commercial demand for our drug products.

We may, in the future, rely on third-party CMOs or enter into manufacturing joint ventures with third parties to manufacture our approved drug products on a commercial scale. However, we cannot assure you that we

will be able to contract with such third parties on acceptable terms, if at all, or that such third parties will satisfy our quality standards or meet our supply requirements in a timely manner, if at all. In addition, only a limited number of manufacturers are capable of supplying pharmaceutical products. The manufacturing process for our drug products will be highly regulated, and we will need to contract with manufacturers that can meet the relevant regulatory requirements on an ongoing basis. If the third-party manufacturers with whom we contract fail to perform their obligations, we may not be able to meet commercial demand for our drug products, which would have a material and adverse impact on our business.

Risks Related to our Intellectual Property

Our commercial success depends largely on our ability to protect our intellectual property.

Our commercial success depends, in large part, on our ability to obtain and maintain patent protection and trade secret protection in the United States and elsewhere in respect of our product candidates and PRINT technology. If we fail to adequately protect our intellectual property rights, our competitors may be able to erode, negate or preempt any competitive advantage we may have. To protect our competitive position, we have filed and will continue to file for patents in the United States and elsewhere in respect of our product candidates and PRINT technology. The process of identifying patentable subject matter and filing a patent application is expensive and time-consuming. We cannot assure you that we will be able to file the necessary or desirable patent applications at a reasonable cost, in a timely manner, or at all. Further, since certain patent applications are confidential until patents are issued, third parties may have filed patent applications for subject matters covered by our pending patent applications without us being aware of such applications, and our patent applications may not have priority over patent applications of others. In addition, we cannot assure you that our pending patent applications will result in patents being obtained. The standards that patent offices in different jurisdictions use to grant patents are not always applied predictably or uniformly and may be changed.

Even if we have been or are able to obtain patent protection for our product candidates or PRINT technology, if the scope of such patent protection is not sufficiently broad, we may not be able to rely on such patent protection to prevent third parties from developing or commercializing our product candidates or technology. The enforceability of patents in the pharmaceutical industry involves complex legal and scientific questions and can be uncertain. Accordingly, we cannot assure you that third parties will not successfully challenge the validity, enforceability or scope of our patents. A successful challenge to our patents may lead to generic versions of our drug products being launched before the expiry of our patents or otherwise limit our ability to stop others from using or commercializing similar or identical products and technology, or the duration of the patent protection of our drug products and technology. If any of our patents are narrowed or invalidated, our business and prospects may be materially and adversely affected. In addition, we cannot assure you that we will be able to detect unauthorized use or take appropriate, adequate and timely actions to enforce our intellectual property rights. If we are unable to adequately protect our intellectual property, our business, competitive position and prospects may be materially and adversely affected.

Even if our patents or patent applications are unchallenged, they may not adequately protect our intellectual property or prevent third parties from designing around our claims. If the patent applications we file or may file do not lead to patents being granted or if the scope of any of our patent applications is challenged, we may face difficulties in developing our product candidates, companies may be dissuaded from collaborating with us, and our ability to commercialize our product candidates may be materially and adversely affected. We are unable to predict which of our patent applications will lead to patents or assure you that any of our patents will not be found invalid or unenforceable or challenged by third parties. The patents of others may prevent the commercialization of product candidates incorporating our technology. In addition, given the amount of time required for the development, clinical testing and regulatory review of new product candidates, the patent protecting our product candidates may expire before or shortly after such product candidates are commercialized, if at all.

Moreover, the issuance of a patent is not conclusive as to the inventorship of the patented subject matter, or its scope, validity or enforceability. We cannot assure you that all of the potentially relevant prior art, that is, any evidence that an invention is already known, relating to our patents and patent applications, has been found. If such prior art exists, it may be used to invalidate a patent or may prevent a patent from being issued.

In addition, we, our collaborators or our licensees may fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them. As a result, we may miss potential opportunities to strengthen our patent position.

If we are unable to protect our trade secrets, the value of our PRINT technology and product candidates may be negatively impacted, which would have a material and adverse effect on our competitive position and prospects.

In addition to patent protection, we rely on trade secret protection to protect certain aspects of our intellectual property. While we require parties who have access to any portion of our trade secrets, such as our employees, consultants, advisers, CROs, CMOs, collaborators and other third parties, to enter into non-disclosure and confidentiality agreements with us, we cannot assure you that these parties will not disclose our proprietary information, including our trade secrets, in breach of their contractual obligations. Enforcing a claim that a party has illegally disclosed or misappropriated a trade secret is difficult, costly and time-consuming, and we may not be successful in doing so. If the steps we have taken to protect our trade secrets are deemed by the adjudicating court to be inadequate, we may not be able to obtain adequate recourse against a party for misappropriating our trade secrets.

Trade secrets can be difficult to protect as they may, over time, be independently discovered by our competitors or otherwise become known despite our trade secret protection. If any of our trade secrets were to be lawfully obtained or independently developed by our competitors, we would have no right to prevent such competitors, or those to whom they communicate such technology or information, from using that technology or information to compete with us. Such competitors could attempt to replicate some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own competitive technologies that fall outside of our intellectual property rights.

If our trade secrets were to be disclosed to or independently developed by our competitors, our competitors may be able to exploit our PRINT technology to develop competing product candidates, and the value of our PRINT technology and our product candidates may be negatively impacted. This would have a material and adverse effect on our competitive position and prospects.

We rely on licenses to intellectual property that are owned by third parties.

We have entered and may, in the future, enter into license agreements with third parties to license the rights to use their technologies in our research, development and commercialization activities. License agreements generally impose various diligence, milestone payments, royalty, insurance and other obligations on us, and if we fail to comply with these obligations, our licensors may have the right to terminate these license agreements. Termination of these license agreements or the reduction or elimination of our licensed rights or the exclusivity of our licensed rights may have an adverse impact on, among others, our ability to develop and commercialize our product candidates. We cannot assure you that we will be able to negotiate new or reinstated licenses on commercially acceptable terms, or at all.

In addition, we license certain patent rights for our PRINT technology from The University of North Carolina at Chapel Hill, or UNC, under the UNC Amended and Restated License Agreement, dated as of December 15, 2008, as amended, or the UNC license. Under the UNC License, UNC has the right to terminate our license if we materially breach the agreement and fail to cure such breach within the stipulated time. In the event that UNC terminates our license and we have a product that relies on that

license, it may bring a claim against us, and if they are successful, we may be required to compensate UNC for the unauthorized use of their patent rights through the payment of royalties.

Also, the agreements under which we license patent rights may not give us control over patent prosecution or maintenance, so that we may not be able to control which claims or arguments are presented and may not be able to secure, maintain or successfully enforce necessary or desirable patent protection from those patent rights. We do not have primary control over patent prosecution and maintenance for certain of the patents we license, and therefore cannot assure you that these patents and applications will be prosecuted or maintained in a manner consistent with the best interests of our business. We also cannot assure you that patent prosecution and maintenance activities by our licensors, if any, will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents.

Pursuant to the terms of some of our license agreements with third parties, some of our third-party licensors have the right, but not the obligation, in certain circumstances, to control the enforcement of our licensed patents or defense of any claims asserting the invalidity of these patents. Even if we are permitted to pursue such enforcement or defense, we will require the cooperation of our licensors, and we cannot assure you that we will receive such cooperation on commercially acceptable terms, or at all. We also cannot assure you that our licensors will allocate sufficient resources or prioritize their or our enforcement of these patents or defense of these claims to protect our interests in the licensed patents. If we cannot obtain patent protection, or enforce existing or future patents against third parties, our competitive position, business and prospects may be materially and adversely affected.

Further, licenses to intellectual property may not always be available to us on commercially acceptable terms, or at all. In the event that the licenses we rely on are not available to us on commercially acceptable terms, or at all, our ability to commercialize our PRINT technology or product candidates, and our business and prospects, may be materially and adversely affected.

We may become involved in litigation to protect our intellectual property or enforce our intellectual property rights, which could be expensive, time-consuming and may not be successful.

Competitors may infringe our patents or misappropriate or otherwise violate our intellectual property rights. To counter infringement or unauthorized use, we may engage in litigation to, among others, enforce or defend our intellectual property rights, determine the validity or scope of our intellectual property rights and those of third parties, and protect our trade secrets. Such actions may be time-consuming and costly and may divert our management's attention from our core business and reduce the resources available for our clinical development, manufacturing and marketing activities, and consequently have a material and adverse effect on our business and prospects, regardless of the outcome.

In addition, in an infringement proceeding, a court may decide that a patent owned by, or licensed to, us is invalid or unenforceable, or may refuse to stop the other party from using the technology in question on the ground that our patents do not cover such technology. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that our confidential information may be compromised by disclosure.

We may be subject to claims that our employees or consultants have wrongfully used or disclosed to us alleged trade secrets of their former employers or other clients.

As is common in our industry, a number of our employees, including our Chief Executive Officer and a number of our executive officers, were formerly employed by other biotechnology or pharmaceutical companies, including our competitors or potential competitors, among others, and may have entered into proprietary rights, non-disclosure and non-competition agreements or similar agreements, in connection with such previous employment. Moreover, we engage the services of scientific advisers and consultants to assist us in the development of our products, many of whom were previously employed at or may have previously

been or are currently providing consulting or advisory services to, other biotechnology or pharmaceutical companies, and who may have also entered into proprietary rights, non-disclosure and non-competition (or similar) agreements with such other companies.

While we require that our employees, scientific advisers and consultants do not use the proprietary information or know-how of others in their work for us, we cannot assure you that we will not be subject to claims that we or these employees, scientific advisers or consultants have inadvertently or otherwise used or disclosed the trade secrets or proprietary information of their former employers or former or present clients in their work for us, especially where such former employers or former or present clients are our competitors or potential competitors. Claims brought against us could cause us to incur unexpected and substantial costs, as well as divert our management's attention from our core business and reduce the resources available for our clinical development, manufacturing and marketing activities. Consequently, our business may be materially and adversely affected.

We may be subject to claims from third parties that our products infringe their intellectual property rights.

The pharmaceutical industry has experienced rapid technological change and obsolescence in the past, and our competitors have strong incentives to stop or delay any introduction of new drug products or related technologies by, among others, establishing intellectual property rights over their drug products or technologies and aggressively enforcing these rights against potential new entrants into the market. We expect that we and other industry participants will be increasingly subject to infringement claims as the number of competitors and drug products grows.

Our commercial success depends in large part upon our ability to develop, manufacture, market and sell our drug products or product candidates without infringing on the patents or other proprietary rights of third parties. It is not always clear to industry participants, including us, what the scope of a patent covers. Due to the large number of patents in issue and patent applications filed in our industry, there is a risk that third parties will claim that our products or technologies infringe their intellectual property rights.

Claims for infringement of intellectual property which are brought against us, whether with or without merit, and which are generally uninsurable, could result in time-consuming and costly litigation, diverting our management's attention from our core business and reducing the resources available for our drug product development, manufacturing and marketing activities, and consequently have a material and adverse effect on our business and prospects, regardless of the outcome. Moreover, such proceedings could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not being issued. We also may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Uncertainties resulting from the initiation and continuation of litigation or other proceedings could also have a material and adverse effect on our ability to compete in the market. Third parties making claims against us could obtain injunctive or other equitable relief against us, which could prevent us from further developing or commercializing our product candidates.

In particular, we may be required to include a certification of patent invalidity or non-infringement, or a paragraph IV certification, in an NDA submitted under the 505(b)(2) regulatory pathway, to certify that a patent over a reference listed drug is invalid, unenforceable or will not be infringed by the manufacture, use or sale of our product candidate. The holder of such patent may file a patent infringement lawsuit against us after receiving notice of the paragraph IV certification. Any such patent infringement lawsuit, if filed, will trigger a one-time, automatic, 30-month stay of the FDA's ability to approve our application, unless the patent litigation is resolved in our favor or the patent expires before that time. Accordingly, we may invest a significant amount of time and expense in the development of a product candidate only to be subject to significant delay and incur substantial costs in litigation before such product candidate may be commercialized, if at all. Companies that produce reference listed drugs routinely bring claims for patent infringement against applicants under the 505(b)(2) regulatory pathway that are seeking regulatory approval to manufacture and market generic or reformulated forms of their reference listed drugs.

In the event of a successful infringement claim against us, including an infringement claim filed in response to a paragraph IV certification, we may be required to pay damages, cease the development or commercialization of our drug products or product candidates, re-engineer or redevelop our drug products or product candidates or enter into royalty or licensing agreements, any of which could have a material and adverse impact on our business, financial condition and results of operations. Any effort to re-engineer or redevelop our products would require additional monies and time to be expended and may not ultimately be successful.

Infringement claims may be brought against us in the future, and we cannot assure you that we will prevail in any ensuing litigation given the complex technical issues and inherent uncertainties involved in intellectual property litigation. Our competitors may have substantially greater resources than we do and may be able to sustain the costs of such litigation more effectively than we can.

Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. While various extensions may be available, the life of a patent, and the protection it affords, is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized.

We intend to seek extensions of patent terms in the United States and, if available, in other countries where we prosecute patents. In the United States, the U.S. Drug Price Competition and Patent Term Restoration Act of 1984, as amended, or the Hatch-Waxman Act, permits patent owners to request a patent term extension, based on regulatory review period for a product, of up to five years beyond the normal expiration of the patent, which is limited to one patent claiming the approved drug product or use in an indication (or any additional indications approved during the period of extension). However, the applicable authorities, including the FDA and the U.S. Patent and Trademark Office, or the USPTO, in the United States, and comparable regulatory authorities in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to our patents, or grant more limited extensions than we had requested. In such event, our competitors may be able to take advantage of our investment in development and clinical trials by referencing our preclinical and clinical data in their marketing approval applications with the FDA to launch their drug product earlier than might otherwise be the case.

If we fail to comply with various procedural, document submission, fee payment or other requirements imposed by the USPTO or comparable patent agencies in other countries, our patent protection could be reduced or eliminated.

We are required, over the lifetime of an issued patent, to pay periodic maintenance fees to the USPTO and comparable patent agencies in other countries. We are also required by such patent agencies to comply with a number of procedural, documentary, fee payment and other conditions during the patent application process. While an inadvertent lapse can, in many cases, be cured by payment of a late fee or other means in accordance with the applicable rules, there are situations in which non-compliance can result in abandonment or lapse of a patent or patent application, resulting in the partial or complete loss of patent rights in the relevant jurisdiction. Such situations include, but are not limited to:

- a failure to respond to official actions within the prescribed time limits;
- the non-payment of fees; and
- a failure to properly legalize and submit formal documents.

If we or our licensors, which control the prosecution and maintenance of patents which we license, fail to maintain the patents or patent applications covering our product candidates or technology, such rights

would be reduced or eliminated and, consequently, our competitive position, business and prospects may be materially and adversely affected.

Changes in patent laws or interpretations of patent laws in the United States or elsewhere may diminish the value of our intellectual property or narrow the scope of protection of our patents.

In September 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law, and many of the substantive changes became effective in March 2013. The Leahy-Smith Act includes a number of significant changes to U.S. patent law, including changing the United States patent system from a "first to invent" system to a "first inventor to file" system, expanding the definition of prior art and developing a post-grant review system.

The provisions under the Leahy-Smith Act may affect the way patent applications will be prosecuted and may also affect patent litigation. It may also weaken our ability to obtain patent protection in the United States for those applications filed after March 16, 2013.

Further, the post-grant review and inter partes review proceedings established under the Leahy-Smith Act have been used by certain parties to cause a cancellation of selected or all claims in relation to the issued patents of their competitors. For a patent with an effective filing date of March 16, 2013 or later, a petition for post-grant review can be filed by a third party in a nine-month window from issuance of the patent. A petition for inter partes review can be filed after the nine-month period for filing a post-grant review petition has expired for a patent with an effective filing date of March 16, 2013 or later. Post-grant review proceedings can be brought on any ground of invalidity, whereas inter partes review proceedings can only raise an invalidity challenge based on published prior art and patents. These adversarial actions at the USPTO review patent claims without the presumption of validity afforded to U.S. patents in lawsuits in U.S. federal courts, and use a lower burden of proof than that used in civil actions in the U.S. federal courts. Therefore, it is generally considered easier for a competitor or third party to have a U.S. patent invalidated in a USPTO post-grant review or inter partes review proceeding than invalidated in a litigation in a U.S. federal court. We cannot assure you that we, our licensors or our collaborators will be successful in defending any challenge by a third party in a USPTO proceeding.

In addition, recent court rulings in the United States have narrowed the scope of patent protection available and weakened the rights of patent owners, particularly in the pharmaceutical industry. In 2012, the Supreme Court of the United States, or the Supreme Court, issued a decision in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.* invalidating patent claims directed to a process of measuring a metabolic product in a patient to optimize a drug dosage for the patient. In 2013, the Supreme Court issued its decision in Association for *Molecular Pathology v. Myriad Genetics, Inc.* invalidating patent claims directed to the breast cancer susceptibility genes BRCA1 and BRCA2. In 2017, the Supreme Court issued its decision in *TC Heartland v. Kraft Food Group Brands*, holding that patentees can only sue alleged infringers in their state of incorporation. These rulings deviated from precedents and, accordingly, have created uncertainty with regard to our ability to obtain patents in the future as well as the value of such patents, once obtained. Depending on future actions by Congress, the U.S. courts, the USPTO and the relevant law-making bodies in other countries, the laws and regulations governing patents could change in unpredictable ways that would affect our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

We may not be able to enforce our intellectual property rights throughout the world.

Filing, prosecuting, enforcing and defending patents on our PRINT technology and our product candidates throughout the world may be prohibitively expensive and may not be financially or commercially feasible. In countries where we have not obtained patent protection, our competitors may be able to use our proprietary technologies to develop competing product candidates.

Also, the legal systems of non-U.S. jurisdictions may not protect intellectual property rights to the same extent or in the same manner as the laws of the United States, and we may face significant difficulty in enforcing our intellectual property rights in these jurisdictions. The legal systems of certain developing countries may not favor the enforcement of patents and other intellectual property rights. We may therefore face difficulty in stopping the infringement or misappropriation of our patents or other intellectual property rights in those countries.

We need to protect our trademark, trade name and service mark rights to prevent competitors from taking advantage of our goodwill.

We believe that the protection of our trademark, trade name and service mark rights, such as Liquidia, the Liquidia logo and PRINT, is an important factor in product recognition, protecting our brand, maintaining goodwill and maintaining or increasing market share. We may expend substantial cost and effort in an attempt to register new trademarks, trade names and service marks and maintain and enforce our trademark, trade name and service mark rights. If we do not adequately protect our rights in our trademarks, trade names and service marks from infringement, any goodwill that we have developed in those trademarks could be lost or impaired.

Third parties may claim that the sale or promotion of our products, when and if approved, may infringe on the trademark, trade name and service mark rights of others. Trademark, trade name and service mark infringement problems occur frequently in connection with the sale and marketing of pharmaceutical products. If we become involved in any dispute regarding our trademark, trade name and service mark rights, regardless of whether we prevail, we could be required to engage in costly, distracting and time-consuming litigation that could harm our business. If the trademarks, trade names and service marks we use are found to infringe upon the trademarks, trade names or service marks of another company, we could be liable for damages and be forced to stop using those trademarks, trade names or service marks, and as result, we could lose all the goodwill that has been developed in those trademarks, trade names or service marks.

Risks Related to Healthcare Regulation

We are subject to various laws and regulations, such as healthcare fraud and abuse laws, false claim laws and health information privacy and security laws, among others, and failure to comply with these laws and regulations may have an adverse effect on our business.

Healthcare providers, physicians and third-party payors often play a primary role in the recommendation and prescription of any drug products for which we may obtain marketing approval. Our current and future arrangements with healthcare providers, physicians, third-party payors and customers, and our sales, marketing and educational activities, may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations (at the federal and state level) that may constrain our business or financial arrangements and relationships through which we market, sell and distribute our drug products for which we obtain marketing approval.

In addition, we may be subject to transparency laws and patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include, but are not limited to, the following:

- § the federal Anti-Kickback Statute, which prohibits, persons and entities including pharmaceutical manufacturers from, among other things, knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for or the purchase, lease, order or recommendation of an item or service for which payment may be made, in whole or in part, under federal healthcare programs such as the Medicare and Medicaid programs. This statute has been interpreted broadly to apply to, among other things, arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other

hand. The term "remuneration" expressly includes kickbacks, bribes or rebates and also has been broadly interpreted to include anything of value, including, for example, gifts, discounts, waivers of payment, ownership interest and providing anything at less than its fair market value. There are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, however, the exceptions and safe harbors are drawn narrowly, and practices that do not fit squarely within an exception or safe harbor may be subject to scrutiny. The failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the federal Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Our practices may not meet all of the criteria for safe harbor protection from federal Anti-Kickback Statute liability in all cases. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act. The U.S. Patient Protection and Affordable Care Act of 2010, as amended, or the ACA, amended the False Claims Act to provide that a claim that includes items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim;

- the federal civil and criminal false claims laws and civil monetary penalty laws, including the False Claims Act, which prohibits individuals or entities from, among other things, knowingly presenting, or causing to be presented, claims for payment to, or approval by, the federal government that are false, fictitious or fraudulent or knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim to avoid, decrease or conceal an obligation to pay money to the federal government. As a result of a modification made by the Fraud Enforcement and Recovery Act of 2009, a claim includes "any request or demand" for money or property presented to the federal government. Although we do not submit claims directly to payors, manufacturers can be held liable under these laws if they are deemed to "cause" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers, promoting a product off-label, marketing products of sub-standard quality, or, as noted above, paying a kickback that results in a claim for items or services. In addition, our activities relating to the reporting of wholesaler or estimated retail prices for our products, the reporting of prices used to calculate Medicaid rebate information and other information affecting federal, state and third-party reimbursement for our products, and the sale and marketing of our products, are subject to scrutiny under this law. For example, several pharmaceutical and other healthcare companies have faced enforcement actions under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. The False Claims Act also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the False Claims Act and to share in any monetary recovery. In addition, federal Anti-Kickback Statute violations and certain marketing practices, including off-label promotion, may also implicate the False Claims Act. Although the False Claims Act is a civil statute, conduct that results in a False Claims Act violation may also implicate various federal criminal statutes;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations or promises, any money or property owned by, or under the control or custody of, any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device, a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, including the Final Omnibus Rule published on January 25, 2013, impose, among other things, obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information held by certain healthcare providers, health plans and healthcare clearinghouses, known as covered entities, and business associates. Among other things, HITECH made certain aspects of HIPAA's rules (notably the Security Rule) directly applicable to business associates — independent contractors or agents of covered entities that receive or obtain individually identifiable health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal court to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. The Department of Health and Human Services Office of Civil Rights, or the OCR, has increased its focus on compliance and continues to train state attorneys general for enforcement purposes. The OCR has recently increased both its efforts to audit HIPAA compliance and its level of enforcement, with one recent penalty exceeding $5 million;

- the federal physician payment transparency requirements, sometimes referred to as the "Physician Payments Sunshine Act," created under the ACA which requires applicable manufacturers of covered drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the State Children's Health Insurance Program (with certain exceptions) to annually report to the U.S. Department of Health and Human Services, or HHS, information related to certain payments or other transfers of value made or distributed to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;

- according to the U.S. Federal Trade Commission, or the FTC, failing to take appropriate steps to keep consumers' personal information secure constitutes unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act, or the FTCA. The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities. Medical data is considered sensitive data that merits stronger safeguards. The FTC's guidance for appropriately securing consumers' personal information is similar to what is required by the HIPAA Security Rule;

- analogous state laws and regulations, such as state anti-kickback and false claims laws, which may apply to items or services reimbursed by any third-party payor, including commercial insurers, some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report pricing and marketing information, including, among other things, information related to payments to physicians and other healthcare providers or marketing expenditures, state and local laws that require the registration of pharmaceutical sales representatives, and state laws governing the privacy and security of health information and the use of prescriber-identifiable data in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts; and

- price reporting laws that require us to calculate and report complex pricing metrics to government programs, where such reported prices may be used in the calculation of reimbursements or discounts on our drug products. Participation in such programs and compliance with their requirements may subject us to increased infrastructure costs and potentially limit our ability to price our drug products.

Further, we are subject to a number of environmental and health and safety laws and regulations, including those governing laboratory processes and the handling, use, storage, treatment and disposal of hazardous materials and waste.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that certain business activities could be subject to challenge under one or more of such laws. The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Ensuring that business arrangements with third parties comply with applicable healthcare laws, as well as responding to possible investigations by government authorities, can be time- and resource-consuming and can divert management's attention from the business.

If our operations are found to be in violation of any of the laws or regulations described above or any other laws or government regulations that apply to us, we may be subject to penalties, including, but not limited to, criminal, civil and administrative penalties, damages, fines, disgorgement, individual imprisonment, possible exclusion from participation in Medicare, Medicaid or other government healthcare programs, injunctions, private qui tam actions brought by individual whistleblowers in the name of the government and the curtailment or restructuring of our operations as well as additional reporting obligations and oversight if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws, any of which could adversely affect our ability to operate our business and our results of operations.

Legislative or regulatory reform of the healthcare system in our target markets may affect our operations and profitability.

In recent years, there have been numerous initiatives on the federal and state levels in the United States for comprehensive reforms affecting the payment for, the availability of and reimbursement for healthcare services. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States. For example, the ACA and the Health Care and Education Reconciliation Act of 2010, which amends the ACA, collectively, the U.S. Health Reform Laws, were signed into law in the United States in March 2010.

Among the provisions of the ACA of importance to the pharmaceutical industry are the following:

- the Medicaid Drug Rebate Program requires pharmaceutical manufacturers to enter into and have in effect a national rebate agreement with the Secretary of the Department of Health and Human Services as a condition of Medicare Part B and Medicaid coverage of the manufacturer's outpatient drugs furnished to Medicaid patients. Effective in 2010, the ACA made several changes to the Medicaid Drug Rebate Program, including increasing pharmaceutical manufacturers' rebate liability by raising the minimum basic Medicaid rebate on most branded prescription drugs from 15.1% of average manufacturer price, or AMP, to 23.1% of AMP, establishing new methodologies by which AMP is calculated and rebates owed by manufacturers under the Medicaid Drug Rebate Program are collected for drugs that are inhaled, infused, instilled, implanted or injected, adding a new rebate calculation for "line extensions" (i.e., new formulations, such as extended release formulations) of solid oral dosage forms of branded products, expanding the universe of Medicaid utilization subject to drug rebates to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations, and expanding the population potentially eligible for Medicaid drug benefits;

- the expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals beginning in April 2010 and by adding new mandatory eligibility categories for certain individuals with income at or below 133.0% of the federal poverty level beginning in 2014, thereby potentially increasing both the volume of sales and manufacturers' Medicaid rebate liability;

- in order for a pharmaceutical product to receive federal reimbursement under the Medicare Part B and Medicaid programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The required 340B discount on a given product is calculated based on the AMP and Medicaid rebate amounts reported by the manufacturer. Effective in 2010, the ACA expanded the types of entities eligible to receive discounted 340B pricing, although, under the current state of the law, with the exception of children's hospitals, these newly eligible entities will not be eligible to receive discounted 340B pricing on orphan drugs when used for the orphan indication. In addition, as 340B drug pricing is determined based on AMP and Medicaid rebate data, the revisions to the Medicaid rebate formula and AMP definition described above could cause the required 340B discount to increase. Recent proposed guidance from the U.S. Department of Health and Human Services Health Resources and Services Administration, if adopted in its current form, may affect manufacturers' rights and liabilities in conducting audits and resolving disputes under the 340B program;

- the ACA imposed a requirement on manufacturers of branded drugs to provide a 50% (and 70% commencing on January 1, 2019) discount off the negotiated price of branded drugs dispensed to Medicare Part D patients in the coverage gap (i.e., the donut hole);

- the ACA imposed an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs, apportioned among these entities according to their market share in certain government healthcare programs, although this fee would not apply to sales of certain products approved exclusively for orphan indications;

- the ACA implemented the Physician Payments Sunshine Act;

- the ACA requires annual reporting of drug samples that manufacturers and distributors provide to physicians;

- the ACA expanded healthcare fraud and abuse laws in the United States, including the False Claims Act and the federal Anti-Kickback Statute, new government investigative powers and enhanced penalties for non-compliance;

- the ACA established a licensing framework for follow-on biologics;

- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in and conduct comparative clinical effectiveness research, along with the funding for such research. The research conducted by the Patient-Centered Outcomes Research Institute may affect the market for certain pharmaceutical products by influencing decisions relating to coverage and reimbursement rates; and

- the ACA established the Center for Medicare and Medicaid Innovation within the Centers for Medicare & Medicaid Center, or Innovation Center, to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending. The Innovation Center has been funded through 2019, and funding will be automatically renewed for each 10-year budget window thereafter.

Some of the provisions of the ACA have yet to be implemented, and there have been judicial and Congressional challenges to certain aspects of the ACA, as well as recent efforts by the Trump administration to repeal or replace certain aspects of the ACA. Since January 2017, President Trump has signed two Executive Orders and other directives designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the ACA have been signed into law. The Tax Cuts and Jobs Act of

2017, or the TCJA, includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate". Additionally, on January 22, 2018, President Trump signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the ACA, effective January 1, 2019, to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole".

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2.0% per fiscal year, which went into effect in 2013, and due to subsequent legislative amendments to the statute, including the BBA, will remain in effect through 2027 unless additional Congressional action is taken. In January 2013, then-President Barack Obama signed into law the American Taxpayer Relief Act of 2012, or the ATRA, which, among others, delayed for another two months the budget cuts mandated by these sequestration provisions of the Budget Control Act of 2011. The ATRA also reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material and adverse effect on our customers and accordingly, our financial operations.

Further, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. At the federal level, the Trump administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. Additionally, on May 11, 2018, President Trump laid out his administration's "Blueprint" to lower drug prices and reduce out of pocket costs of drugs, as well as additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. HHS has already started the process of soliciting feedback on some of these measures and, at the same, is immediately implementing others under its existing authority. Although most of these, and other, proposals will require authorization through additional legislation to become effective, the U.S. Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs, including by addressing the role of pharmacy benefit managers in the supply chain. At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

More recently, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017, or Right to Try Act, was signed into law. The law, among other things, provides a federal framework for patients to access certain investigational new drug products that have completed a Phase I clinical trial. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA approval under the FDA expanded access program. The Right to Try Act did not establish any new entitlement or positive right to any party or individual, nor did it create any new mandates, directives, or additional regulations requiring a manufacturer or sponsor of an eligible investigational new drug product to provide expanded access.

We are unable to predict the future course of federal or state healthcare legislation in the United States directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. The U.S. Health Reform Laws and any further changes in the law or regulatory framework that reduce our revenue or increase our costs could also have a material and adverse effect on our business, financial condition and results of operations.

Healthcare laws and regulations may affect the pricing of our drug products and may affect our profitability.

In certain countries, the government may provide healthcare at a subsidized cost to consumers and regulate prices, patient eligibility or third-party payor reimbursement policies to control the cost of drug products. Such a system may lead to inconsistent pricing of our drug products from one country to another. The availability of our drug products at lower prices in certain countries may undermine our sales in other countries where our drug products are more expensive. In addition, certain countries may set prices by reference to the prices of our drug products in other countries. Our inability to secure adequate prices in a particular country may adversely affect our ability to obtain an acceptable price for our drug products in existing and potential markets. If we are unable to obtain a price for our drug products that provides an appropriate return on our investment, our profitability may be materially and adversely affected.

Risks Related to this Offering and Our Common Stock

No active trading market for our common stock exists or may develop, and you may not be able to resell your common stock at or above the initial public offering price.

Prior to this offering, there has been no public market for our common stock and, although we have applied to have our common stock listed on The Nasdaq Capital Market, an active trading market for our shares may never develop or be sustained following this offering. The initial price to public for our common stock will be determined through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of the common stock after the offering. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable, may reduce the market value of your shares and may impair your ability to raise capital. If you purchase shares of our common stock in this offering, you may not be able to resell those shares at or above the initial public offering price.

Future sales of our common stock or securities convertible into our common stock in the public market could cause our stock price to fall.

Our stock price could decline as a result of sales of a large number of shares of our common stock or securities convertible into our common stock after this offering or the perception that these sales could occur. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

Upon completion of this offering, shares of our common stock will be outstanding (shares of common stock will be outstanding assuming exercise in full of the underwriters' option to purchase additional shares). All shares of common stock expected to be sold in this offering will be freely tradable without restriction or further registration under the Securities Act of 1933, as amended, or the

Securities Act, unless held by our "affiliates," as that term is defined in Rule 144 under the Securities Act, or Rule 144. The resale of the remaining shares, or % of our outstanding shares after the completion of this offering, is currently prohibited or otherwise restricted as a result of securities law provisions, market standoff agreements entered into by our stockholders with us or lock-up agreements entered into by our stockholders with the underwriters; however, subject to applicable securities law restrictions these shares will be able to be sold in the public market beginning 180 days after the date of this prospectus. Shares issued upon the exercise of stock options outstanding under our equity incentive plans or pursuant to future awards granted under those plans will become available for sale in the public market to the extent permitted by the provisions of applicable vesting schedules, any applicable market stand-off and lock-up agreements, and Rule 144 and Rule 701 under the Securities Act, or Rule 701. For more information see the section of this prospectus captioned "Shares Eligible for Future Sale."

Upon completion of this offering, the holders of approximately shares, or %, of our common stock, will have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register the offer and sale of all shares of common stock that we may issue under our equity compensation plans. Once we register the offer and sale of shares for the holders of registration rights and shares to be issued under our equity incentive plans, they can be freely sold in the public market upon issuance or resale (as applicable), subject to the lock-up agreements described in the section of this prospectus captioned "Underwriting."

In the future, we may issue additional shares of common stock or other equity or debt securities convertible into common stock in connection with a financing, acquisition, litigation settlement, employee arrangements or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and could cause our stock price to decline.

The incurrence of indebtedness could result in increased fixed payment obligations, and we may be required to agree to certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights, limitations on declaring dividends and other operating restrictions that could adversely impact our ability to conduct our business. We could also be required to seek funds through collaborations, strategic alliances or licensing arrangements with third parties, and we could be required to do so at an earlier stage than otherwise would be desirable. In connection with any such collaborations, strategic alliances or licensing arrangements, we may be required to relinquish valuable rights to our intellectual property, future revenue streams, research programs or product candidates, grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves, or otherwise agree to terms unfavorable to us, any of which may have a material adverse effect on our business, operating results and prospects.

Our management has broad discretion in using the net proceeds from this offering and may not use them effectively.

We expect to use the net proceeds of this offering to complete our ongoing Phase 3 clinical trial of LIQ861, advance LIQ865 through our planned Phase 2-enabling toxicology studies in 2018, fund operations supporting the development of LIQ861 and LIQ865 and repay $2.3 million of outstanding indebtedness as of March 31, 2018. Our management will have broad discretion in the application of the balance of the net proceeds and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our equity. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, diminish available cash flows available to service our debt, cause the value of our equity to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities, which may not yield favorable returns.

We expect that the market price of our common stock may be volatile, and you may lose all or part of your investment.

The trading prices of the securities of pharmaceutical and biotechnology companies have been highly volatile. The trading price of our common stock following this offering may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this prospectus, these factors include:

- the results of our or our competitors' clinical trials;
- adverse results or delays in the planned clinical trials of our product candidates or any future clinical trials we may conduct, or changes in the development status of our product candidates;
- any delay in our regulatory filings for our product candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including without limitation the FDA's issuance of a "refusal to file" letter or a request for additional information;
- regulatory or legal developments in the United States and other countries, especially changes in laws or regulations applicable to our products and product candidates, including clinical trial requirements for approvals;
- our inability to obtain or delays in obtaining adequate product supply for any approved product or inability to do so at acceptable prices;
- failure to commercialize our product candidates or if the size and growth of the markets we intend to target fail to meet expectations;
- additions or departures of key scientific or management personnel;
- unanticipated serious safety concerns related to the use of our product candidates;
- introductions or announcements of new products offered by us or significant acquisitions, strategic collaborations, joint ventures or capital commitments by us, our collaborators or our competitors and the timing of such introductions or announcements;
- the introduction by our competitors of new products or technologies, or the success of our competitors' products or technologies;
- our ability or inability to effectively manage our growth;
- changes in the structure of healthcare payment systems;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- market conditions in the pharmaceutical and biotechnology sectors or the economy generally;
- our ability or inability to raise additional capital through the issuance of equity or debt or collaboration arrangements and the terms on which we raise it;
- trading volume of our common stock;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- period-to-period fluctuations in our quarterly results of operations or those of our competitors;
- discrepancies between our actual operating results and the estimates or projections of investors or securities analysts;
- fluctuations in the share price and trading volumes of other publicly traded companies engaged in similar business activities as us;
- market conditions in the pharmaceutical industry and in general;

- research and reports published by securities and industry analysts on our company or other companies engaged in similar business activities as us;
- safety concerns in relation to the use of any of our product candidates or approved products; and/or
- our involvement in significant lawsuits, including patent or stockholder litigation.

The stock market in general, and market prices for the securities of pharmaceutical companies like ours in particular, have from time to time experienced volatility that often has been unrelated to the operating performance of the underlying companies. These broad market and industry fluctuations may adversely affect the market price of our common stock, regardless of our operating performance. Stock prices of many pharmaceutical companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In several recent situations when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and harm our operating results.

As a new investor, you will immediately experience substantial dilution as a result of this offering. Furthermore, future sales and issuances of equity securities, convertible securities or other securities could result in additional dilution of the percentage ownership of holders of our common stock.

The purchasers of shares of our common stock in this offering will experience immediate and substantial dilution of $ per share, based on the assumed initial public offering price of $ per share. This dilution represents the amount by which the per share purchase price of our common stock offered in this offering exceeds the pro forma as adjusted net tangible book value per share of our common stock immediately following this offering. In addition, you may also experience additional dilution upon future equity issuances, including any other convertible debt or equity securities we may issue in the future, the exercise of stock options to purchase common stock granted to our employees, consultants and directors, including options to purchase common stock granted under our stock option and equity incentive plans, or the issuance of common stock in settlement of previously issued awards under our stock option and equity incentive plans that may vest in the future. See "Dilution."

We expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell equity securities, convertible securities or other securities in one or more transactions at prices and in a manner we determine from time to time. If we sell equity securities, convertible securities or other securities in more than one transaction, investors in this offering may be materially diluted by subsequent sales. Such sales would also likely result in material dilution to our existing equity holders, and new investors could gain rights, preferences and privileges senior to those of holders of our existing equity securities.

Our principal stockholders and management own a significant percentage of our stock and will be able to exercise significant influence over matters subject to stockholder approval.

Our executive officers, directors and principal stockholders, together with their respective affiliates, beneficially owned 61.0% of our capital stock as of June 15, 2018 and, upon completion of this offering, that same group will beneficially own % of our capital stock, of which % will be beneficially owned by our executive officers (assuming no exercise of the underwriters' option to purchase additional shares and not accounting for any shares purchased in this offering by certain of our existing stockholders, including certain affiliates of our directors, who have indicated an interest in purchasing an aggregate of approximately $ million in this offering). Accordingly, after this offering, our executive officers, directors and principal stockholders will be able to determine the composition of the Board, retain the voting power to approve all matters requiring stockholder approval, including mergers and other business combinations, and continue to have significant influence over our operations. This concentration of ownership could have the effect of delaying or preventing a change in our control or otherwise discouraging

a potential acquirer from attempting to obtain control of us that you may believe are in your best interests as one of our stockholders. This in turn could have a material adverse effect on our stock price and may prevent attempts by our stockholders to replace or remove the Board or management.

If securities or industry analysts do not publish research reports about our business, or if they issue an adverse opinion about our business, our stock price and trading volume could decline.

The trading market for our common stock may be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have, and may never obtain research coverage by securities and industry analysts. If no or few analysts commence research coverage of us, or one or more of the analysts who cover us issues an adverse opinion about our company, our stock price would likely decline. If one or more of these analysts ceases research coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, stockholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock. In addition, any future testing by us conducted in connection with Section 404 of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement.

We will be required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting as early as the fiscal year ending December 31, 2018. However, for as long as we are an "emerging growth company" under the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404. We could be an emerging growth company for up to five years. An independent assessment of the effectiveness of our internal controls could detect problems that our management's assessment might not. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation.

We will incur increased costs by being a public company.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company, including costs associated with public company reporting requirements. We also anticipate that we will incur costs associated with relatively recently adopted corporate governance requirements, including requirements of the U.S. Securities and Exchange Commission and the Nasdaq Stock Market LLC, or Nasdaq. We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. We also expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our Board or as executive officers. We are currently

evaluating and monitoring developments with respect to these rules, and we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

When we cease to be an "emerging growth company" and when our independent registered public accounting firm is required to undertake an assessment of our internal control over financial reporting, the cost of our compliance with Section 404 of the Sarbanes-Oxley Act will correspondingly increase. Moreover, if we are not able to comply with the requirements of Section 404 applicable to us in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

We are an "emerging growth company," as defined in the JOBS Act, and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive because we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We will take advantage of these reporting exemptions until we are no longer an "emerging growth company." We will remain an "emerging growth company" until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more, (ii) the last day of 2023, (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us difficult, limit attempts by our stockholders to replace or remove our current management and adversely affect our stock price.

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon consummation of this offering may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our stock. Among other things, the certificate of incorporation and bylaws will:

- permit the Board to issue up to shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution of our Board;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and may not be taken by written consent;
- creating a staggered board of directors such that all members of our Board are not elected at one time;

- allowing for the issuance of authorized but unissued shares of our capital stock without any further vote or action by our stockholders; and
- establishing advance notice requirements for nominations for election to the Board or for proposing matters that can be acted upon at stockholders' meetings.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, or the DGCL, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any stockholder owning in excess of 15% of our outstanding stock for a period of three years following the date on which the stockholder obtained such 15% equity interest in us. See the section of this prospectus captioned "Description of Capital Stock — Anti-Takeover Effects of Provisions of our Certificate of Incorporation and Bylaws and Delaware Law" for additional information.

The terms of our authorized preferred stock selected by our Board at any point could decrease the amount of earnings and assets available for distribution to holders of our common stock or adversely affect the rights and powers, including voting rights, of holders of our common stock without any further vote or action by the stockholders. As a result, the rights of holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued by us in the future, which could have the effect of decreasing the market price of our common stock.

Any provision of our certificate of incorporation or bylaws or Delaware corporate law that has the effect of delaying or deterring a change in control could limit opportunities for our stockholders to receive a premium for their shares of common stock, and could also affect the price that investors are willing to pay for our common stock.

Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our equity securities. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of existing or any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our equity securities will likely be your sole source of gain for the foreseeable future.

Our ability to use our net operating loss carry forwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change", generally defined as a greater than 50.0% change (by value) in its equity ownership over a three year period, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income may be limited. With this offering as well as other past transactions and any ownership changes that we may experience in the future as a result of subsequent shifts in ownership of our shares of common stock, we may trigger an "ownership change" limitation. Should this occur, and if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us.

The recently passed Tax Cuts and Jobs Act, or the TCJA, could adversely affect our business and financial condition.

On December 22, 2017, President Trump signed into law the TCJA which significantly reforms the Code. The TCJA, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for net operating losses generated after December 31, 2017 to 80% of current year taxable income and elimination of net operating loss carrybacks, immediate deductions for certain new investments

instead of deductions for depreciation expense over time and modifying or repealing many business deductions and credits. Federal net operating losses arising in taxable years ending after December 31, 2017 will be carried forward indefinitely pursuant to the TCJA. We continue to examine the impact this tax reform legislation may have on our business. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the TCJA is uncertain and our business and financial condition could be adversely affected. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse. We urge our stockholders, including purchasers of common stock in this offering, to consult with their legal and tax advisors with respect to such legislation and the potential tax consequences of investing in our common stock.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or other employees.

Our amended and restated certificate of incorporation provides that, to the fullest extent permitted by law, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for: (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to us or our stockholders; (iii) any action asserting a claim against us arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws; or (d) any action asserting a claim against us governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have received notice of and consented to the foregoing provisions. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds more favorable for disputes with us or our directors or officers, which may discourage such lawsuits against us and our directors or officers. Alternatively, if a court were to find this choice of forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition, prospects or results of operations.

CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus may be forward-looking statements. The forward-looking statements are contained principally in the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," but are also contained elsewhere in this prospectus. In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "should," "expects," "plans," "anticipates," "could," "would," "intends," "targets," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. Forward-looking statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- our plans to develop and commercialize our product candidates;
- our planned clinical trials for our product candidates;
- the timing of the availability of data from our clinical trials;
- the timing of our planned regulatory filings;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- the clinical utility of our product candidates and their potential advantages compared to other treatments;
- our commercialization, marketing and distribution capabilities and strategy;
- our ability to establish and maintain arrangements for the manufacture of our product candidates and the sufficiency of our current manufacturing facilities to produce commercial quantities of our product candidates;
- our ability to establish and maintain collaborations;
- our estimates regarding the market opportunities for our product candidates;
- our intellectual property position and the duration of our patent rights;
- our estimates regarding future expenses, capital requirements and needs for additional financing; and
- our expected use of proceeds from this offering and the period over which such proceeds, together with cash, will be sufficient to meet our operating needs.

You should refer to the "Risk Factors" section of this prospectus for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. The forward-looking statements in this prospectus are only predictions, and we may not actually achieve the plans, intentions or expectations included in our forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements.

These forward-looking statements speak only as of the date of this prospectus. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained in this prospectus after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

USE OF PROCEEDS

We estimate that the net proceeds to us from our issuance and sale of shares of our common stock in this offering will be $ million, assuming an initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise in full their option to purchase additional shares, we estimate that the net proceeds from this offering will be $ million.

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease the net proceeds to us from this offering by $ million (or $ million if the underwriters exercise their option to purchase additional shares), assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions. We may also increase or decrease the number of shares we are offering. Each increase or decrease of 1.0 million in the number of shares of common stock offered by us at the assumed initial public offering price of $ per share would increase or decrease the net proceeds to us from this offering by $ million, after deducting estimated underwriting discounts and commissions.

We currently estimate that we will use the net proceeds from this offering, together with our existing cash, as follows:

- approximately $ to $ million to complete our ongoing Phase 3 clinical trial of LIQ861;
- approximately $ to $ million to advance LIQ865 through our planned Phase 2-enabling toxicology studies in 2018;
- approximately $ to $ million to fund operations supporting the development of LIQ861 and LIQ865;
- $2.3 million to repay in full the outstanding indebtedness as of March 31, 2018 under the promissory note issued to UNC, which has the following terms: (i) a maturity date of December 31, 2018; (ii) a rate of interest equal to one-year LIBOR plus 3%, compounded annually; (iii) the entire amount of the outstanding loan amount becomes fully accelerated, due and payable following an initial public offering of our common stock in 2018 in which the gross proceeds are at least $75 million; and (iv) $600,000 of the outstanding loan amount becomes due and payable following an initial public offering of our common stock in 2018 in which the gross proceeds are greater than $50 million and less than $75 million, with the remaining balance of the loan to be amortized and payable in equal monthly installments over the remaining term of our loan and security agreement, or LSA, with Pacific Western Bank, until the loan amount is fully paid in October 2020; and
- the remainder for working capital and general corporate purposes.

This expected use of the net proceeds from this offering and our existing cash represents our intentions based upon our current plans and business conditions. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development and commercialization efforts, the status of and results from clinical trials and actual results of operations, as well as any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

We may also use a portion of the remaining net proceeds to in-license, acquire or invest in complementary businesses, technologies, products or assets, although we have no current agreements, commitments or understandings to do so.

As of March 31, 2018, we had cash of $17.6 million. Based on our planned use of the net proceeds from this offering and our existing cash and current revenue forecasts, we estimate that such funds will be sufficient to enable us to support research and development needs and to fund our operating expenses and capital expenditure requirements until at least . We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. We do not expect that the net proceeds from this offering and our existing cash will be sufficient to enable us to fund the completion of development and commercialization of any of our product candidates.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities.

DIVIDEND POLICY

We currently expect to retain all future earnings, if any, for use in the operation and expansion of our business. We have never declared nor paid any dividends on our common stock and do not anticipate paying cash dividends to holders of our common stock in the foreseeable future. In addition, our loan agreement with our commercial lender prohibits our ability to pay dividends without the lender's prior written consent, with certain exceptions. See "Risk Factors — Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain."

CAPITALIZATION

The following table sets forth our cash and our capitalization as of March 31, 2018:

- on an actual basis;
- on a pro forma basis to give effect to:
  - the conversion of all of our outstanding shares of preferred stock and Class B non-voting common stock into an aggregate of shares of our common stock, which will occur automatically upon the closing of this offering; and
  - the filing and effectiveness of our amended and restated certificate of incorporation upon the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and our use of $2.3 million of the proceeds therefrom to repay debt outstanding as of March 31, 2018 as described in "Use of Proceeds."

You should read the information in this "Capitalization" section in conjunction with our financial statements and the related notes appearing at the end of this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Use of Proceeds' sections and other financial information contained in this prospectus.

	As of March 31, 2018		
	Actual	Pro forma	Pro forma as adjusted
	(in thousands, except share and per share data)		
Cash	$ 17,594	$	$
Long-term debt, including current portion	$ 12,358	$	$
Capital leases, including current portion	926		
Stockholders' deficit:			
Convertible preferred stock, $0.001 par value; 184,209,616 shares authorized, 134,112,438 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	134		
Common stock, $0.001 par value; 265,330,664 shares authorized, 10,452,883 shares issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	10		
Preferred stock, $0.001 par value; no shares authorized, issued or outstanding, actual; shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted	—		
Additional paid-in capital	134,055		
Accumulated deficit	(141,426)		
Total stockholders' (deficit) equity	(7,227)		
Total capitalization	$ 6,057	$	$

Our cash and our capitalization following the completion of this offering will depend on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase or decrease the pro forma as adjusted amount of each of cash, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase or decrease of 1.0 million in the number of shares we are offering at the assumed initial public offering price of $ per share would increase or decrease the pro forma as adjusted amount of each of cash, additional paid-in capital, total stockholders' equity and total capitalization by $ million.

The table above does not include:

- 23,783,999 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2018, with a weighted average exercise price of $0.45 per share;
- shares of common stock issuable upon the exercise of stock options granted after March 31, 2018, with a weighted average exercise price of $ per share;
- 2,146,767 shares of common stock issuable upon the vesting of restricted stock units granted on March 7, 2018 to Kevin Gordon, our President and Chief Financial Officer;
- 4,394,914 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2018, with a weighted average exercise price of $0.0008 per share;
- an aggregate of shares of common stock issuable upon the exercise of stock options to be granted to certain of our officers and directors on the date of execution of the underwriting agreement under the 2018 Plan, assuming we sell shares in this offering, at an exercise price equal to the initial public offering price per share;
- shares of common stock issuable upon the vesting of restricted stock units to be granted to Mr. Gordon on the date of execution of the underwriting agreement pursuant to his employment agreement, assuming we sell shares in this offering;
- an additional 5,915,157 shares of common stock reserved for issuance under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as amended, or the 2016 Plan, as of March 31, 2018, which shares will no longer be reserved following this offering; and
- an additional shares of common stock that will be made available for future issuance under the 2018 Plan upon the effectiveness of the registration statement of which this prospectus forms a part.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering. Net tangible book value per share represents our total tangible assets less our total liabilities, divided by the number of shares of common stock then issued and outstanding.

Our net tangible book value as of March 31, 2018 was $(7.2) million, or $(0.69) per share of common stock.

On a pro forma basis, after giving effect to the conversion of all of our preferred stock outstanding as of March 31, 2018 into an aggregate of shares of common stock upon the closing of this offering, our pro forma net tangible book value as of March 31, 2018 would have been $ million, or $ per share of common stock.

After giving effect to the issuance and sale by us of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and our use of $2.3 million of the proceeds therefrom to repay debt outstanding as of March 31, 2018 as described in "Use of Proceeds," our pro forma as adjusted net tangible book value as of March 31, 2018 would have been $ million, or $ per share. This amount represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution in pro forma as adjusted net tangible book value of $ per share to new investors purchasing common stock in this offering at the assumed initial public offering price. We determine dilution by subtracting the pro forma as adjusted net tangible book value per share of common stock after this offering from the amount of cash that a new investor paid for a share of common stock.

The following table illustrates this dilution to new investors on a per share basis:

Assumed initial public offering price per share		$
Historical net tangible book value per share as of March 31, 2018	$ (0.69)	
Increase in net tangible book value per share attributable to the pro forma adjustments described above		
Pro forma net tangible book value per share before giving effect to this offering		
Increase in pro forma net tangible book value per share attributable to this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors in this offering		$

The pro forma as adjusted information discussed above is illustrative only and will depend on the actual initial public offering price and other terms of this offering determined at pricing. A $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase or decrease the pro forma as adjusted net tangible book value after this offering by $ million, the pro forma as adjusted net tangible book value per share by $, and dilution per share to new investors purchasing shares in this offering by $, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting underwriting discounts and commissions. We may

also increase or decrease the number of shares we are offering. An increase of 1.0 million in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase the pro forma as adjusted net tangible book value per share after this offering by $ and decrease the dilution per share to new investors participating in this offering by $, assuming no change in the assumed initial public offering price and after deducting estimated underwriting discounts and commissions. A decrease of 1.0 million in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease the pro forma as adjusted net tangible book value per share after this offering by $ and increase the dilution per share to new investors participating in this offering by $, assuming no change in the assumed initial public offering price and after deducting estimated underwriting discounts and commissions.

If the underwriters exercise their option in full to purchase additional shares of common stock in this offering, the pro forma as adjusted net tangible book value per share after the offering would be $, the increase in the pro forma net tangible book value per share to existing stockholders would be $ and the dilution per share to new investors purchasing shares in this offering would be $.

If any shares are issued upon exercise of outstanding options, or if additional options or other equity awards are granted and exercised or become vested, or if other issuances of common stock are made, you will experience further dilution.

The following table summarizes as of March 31, 2018, on the pro forma as adjusted basis described above, the number of our shares of common stock purchased from us and the total consideration and the average price per share paid to us by existing stockholders and by new investors purchasing our common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover of this prospectus, before deducting underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New investors					
Total		100.0%	$	100.0%	

A $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase or decrease the total consideration paid by new investors in this offering by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. An increase or decrease of 1.0 million in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming no change in the assumed initial public offering price per share.

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The underwriters will receive the same underwriting discount on these shares as they will on any other shares sold to the public in this offering. The table above does not reflect any potential purchases by such stockholders in this offering.

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters exercise their option to purchase additional shares of common stock in full, the number of shares of common stock held by existing stockholders would decrease to % of the total number of shares of common stock outstanding after this offering, and the number of shares held by new investors would increase to % of the total number of shares of common stock outstanding after this offering.

The number of shares purchased from us by existing stockholders is based on shares of common stock outstanding as of March 31, 2018, after giving effect to the automatic conversion of all of our outstanding preferred shares into shares of common stock upon the closing of this offering, and excludes:

- 23,783,999 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2018, with a weighted average exercise price of $0.45 per share;
- shares of common stock issuable upon the exercise of stock options granted after March 31, 2018, with a weighted average exercise price of $ per share;
- 2,146,767 shares of common stock issuable upon the vesting of restricted stock units granted on March 7, 2018 to Kevin Gordon, our President and Chief Financial Officer;
- 4,394,914 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2018, with a weighted average exercise price of $0.0008 per share;
- an aggregate of shares of common stock issuable upon the exercise of stock options to be granted to certain of our officers and directors on the date of execution of the underwriting agreement under the 2018 Plan, assuming we sell shares in this offering, at an exercise price equal to the initial public offering price per share;
- shares of common stock issuable upon the vesting of restricted stock units to be granted to Mr. Gordon on the date of execution of the underwriting agreement pursuant to his employment agreement, assuming we sell shares in this offering;
- an additional 5,915,157 shares of common stock reserved for issuance under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as amended, or the 2016 Plan, as of March 31, 2018, which shares will no longer be reserved following this offering; and
- an additional shares of common stock that will be made available for future issuance under the 2018 Plan upon the effectiveness of the registration statement of which this prospectus forms a part.

SELECTED FINANCIAL DATA

The selected statement of operations data for the years ended December 31, 2016 and 2017 and the balance sheet data as of December 31, 2016 and 2017 are derived from our audited financial statements included elsewhere in this prospectus. The selected statement of operations data for the three months ended March 31, 2017 and 2018 and the balance sheet data as of March 31, 2018 have been derived from our unaudited interim financial statements included elsewhere in this prospectus. Other than for the impacts of adoption of accounting standards, the unaudited interim financial statements were prepared on a basis consistent with our audited financial statements and reflect, in the opinion of management, all adjustments of a normal recurring nature that are necessarily for the fair statement of our financial position as of March 31, 2018 and our results of operations for the three months ended March 31, 2017 and 2018. Our historical results are not necessarily indicative of the results that may be expected in any future period, and the results for the three months ended March 31, 2018 are not necessarily indicative of results to be expected for the full year ending December 31, 2018, or any other period.

The following selected financial data should be read with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus. The selected financial data in this section are not intended to replace the financial statements and are qualified in their entirety by the financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,		Three Months Ended March 31,	
	2016	2017	2017	2018
Statement of operations data:				
Revenues	$ 13,216,989	$ 7,258,123	$ 1,639,176	$ 925,970
Costs and expenses:				
Cost of sales	918,778	319,759	79,940	27,049
Research and development	23,319,886	24,753,876	6,175,557	7,626,701
General and administrative	4,841,128	10,212,774	2,151,078	2,149,725
Total costs and expenses	29,079,792	35,286,409	8,406,575	9,803,475
Loss from operations	(15,862,803)	(28,028,286)	(6,767,399)	(8,877,505)
Other income (expense):				
Interest income	14,906	268	151	—
Interest expense	(85,865)	(13,010,475)	(2,246,447)	(17,876,795)
Derivative and warrant fair value adjustment	—	11,884,253	(823,051)	(753,887)
Total other income (expense), net	(70,959)	(1,125,954)	(3,069,347)	(18,630,682)
Net loss	(15,933,762)	(29,154,240)	(9,836,746)	(27,508,187)
Other comprehensive loss	—	—	—	—
Comprehensive loss	$ (15,933,762)	$ (29,154,240)	$ (9,836,746)	$ (27,508,187)
Net loss per share, basic and diluted	$ (2.16)	$ (3.08)	$ (1.05)	$ (2.63)
Weighted average shares outstanding, basic and diluted	7,361,596	9,475,083	9,329,157	10,441,880
Pro forma net loss per share, basic and diluted (unaudited)		$		$
Pro forma weighted-average common shares outstanding, basic and diluted (unaudited)		$		$

	As of December 31, 2016	As of December 31, 2017	As of March 31, 2018
Balance Sheet Data:			
Cash	$ 1,438,712	$ 3,418,979	$ 17,593,796
Total assets	8,486,533	14,843,602	29,228,260
Total debt	8,113,660	21,165,131	12,358,368
Capital stock and additional paid-in capital	66,068,868	79,721,075	134,199,601
Accumulated deficit	(84,259,071)	(113,413,311)	(141,426,223)
Total stockholders' deficit	(18,245,203)	(33,692,236)	(7,226,622)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and related notes appearing in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in, or implied by, the forward-looking statements contained in the following discussion and analysis. See "Cautionary Note Regarding Forward-Looking Statements."

Overview

We are a late-stage clinical biopharmaceutical company focused on the development and commercialization of human therapeutics using our proprietary PRINT technology to transform the lives of patients. PRINT is a particle engineering platform that enables precise production of uniform drug particles designed to improve the safety, efficacy and performance of a wide range of therapies. We are currently focused on the development of two product candidates for which we hold worldwide commercial rights: LIQ861 for the treatment of pulmonary arterial hypertension, or PAH, and LIQ865 for the treatment of local post-operative pain. Our lead product candidate, LIQ861, is being evaluated in a Phase 3 clinical trial as a potential treatment for PAH. LIQ861 is an inhaled dry powder formulation of treprostinil that is administered using a convenient, disposable dry powder inhaler, or DPI. Treprostinil is a synthetic analog of prostacyclin, a vasoactive mediator essential to normal lung function, is deficient in patients with PAH. We believe that LIQ861 has the potential to improve the therapeutic profile of existing formulations of treprostinil by enhancing deep-lung delivery and achieving higher dose levels than current inhaled therapies. We have completed both Phase 1a and Phase 1b clinical trials of our second product candidate, LIQ865, for the treatment for local post-operative pain. LIQ865 is our proprietary injectable, sustained-release formulation of bupivacaine, a non-opioid pain medicine. We have designed LIQ865 to be administered as a single treatment for the management of local post-operative pain for three to five days after a procedure, which we believe, if approved, has the potential to provide significantly longer post-operative pain relief compared to currently marketed formulations of bupivacaine. We expect to initiate Phase 2-enabling toxicology studies for LIQ865 in the second half of 2018 which are expected to be followed by an additional Phase 2-enabling toxicology study in 2019, subject to the availability of sufficient funding.

In addition to developing our two current product candidates, we license our PRINT technology to leading pharmaceutical companies seeking to develop their own potential drug and biologic therapies. We believe that our PRINT technology can be applied to a wide range of therapeutic areas, molecule types and routes of administration. We are currently focused on developing product candidates that we believe are eligible to be approved under the 505(b)(2) regulatory pathway, which can be capital efficient and potentially enable a shorter time to approval, as it allows us to rely in part on existing knowledge of the safety and efficacy of the relevant reference listed drugs to support our applications for approval in the United States. If any of our product candidates are approved, we intend to manufacture them using in-house capabilities. Where appropriate, we will rely on third-party CMOs to produce, package and distribute our approved drug products on a commercial scale.

We have not generated any revenue to date from the sale of pharmaceutical products, and we have historically financed our operations in large part with an aggregate of $116.9 million of gross proceeds from sales of our convertible preferred stock, convertible promissory notes, $10.0 million in term loans from a bank and a $2.1 million loan from UNC. We do not expect to generate significant product revenue unless and until we obtain marketing approval for and commercialize LIQ861, LIQ865 or one of our other future product candidates.

Since our inception, we have incurred significant operating losses. Our net loss was $15.9 million and $29.2 million for the years ended December 31, 2016 and 2017, respectively, and $27.5 million for the three months ended March 31, 2018. As of March 31, 2018, we had an accumulated deficit of $141.4 million. We expect to incur significant expenses and operating losses for the foreseeable future as we advance our product candidates through clinical trials, and seek regulatory approval and pursue commercialization of any approved product candidate. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. In addition, we may incur expenses in connection with the in-license or acquisition of additional product candidates. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company, including significant legal, accounting, investor relations and other expenses that we did not incur as a private company.

As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through the sale of equity, debt financings or other capital sources, including potential collaborations with other companies or other strategic transactions. We may be unable to raise additional funds or enter into such other agreements or arrangements when needed on favorable terms, or at all. If we fail to raise capital or enter into such agreements as, and when, needed, we may have to significantly delay, scale back or discontinue the development and commercialization of one or more of our product candidates or delay our pursuit of potential in-licenses or acquisitions.

As of March 31, 2018, we had cash of $17.6 million. In February 2018, we received proceeds of $25.6 million from the sale of our Series D preferred stock and related rights offering. We believe that the anticipated net proceeds from this offering, together with our existing cash, will enable us to fund our operating expenses and capital expenditure requirements until at least . We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect. See " — Liquidity and Capital Resources."

Our Collaborations

Our only revenue, which has been derived from collaborating and licensing our proprietary PRINT technology to pharmaceutical companies, amounted to $13.2 million and $7.3 million for the years ended December 31, 2016 and 2017, respectively, and $1.6 million and $0.9 million for the three months ended March 31, 2017 and 2018, respectively. GSK accounted for $11.8 million and $6.1 million for the years ended December 31, 2016 and 2017, respectively, or 90% and 84%, respectively, of our total revenue during those periods, and $1.5 million and $0.4 million for the three months ended March 31, 2017 and 2018, respectively, or 92% and 47%, respectively, of our total revenue during those periods. However, we do not expect to receive significant amounts from GSK for the year ending December 31, 2018. See "— GSK." Our collaborators make up-front fees or technology access payments, pay us to achieve clinical milestones, pay us fees to develop their drug products through research and development services like particle formulation and manufacturing and will pay us royalties upon ultimate commercial sales of the related products.

GSK

We have actively collaborated with GSK on the use of our PRINT technology in respiratory disease since 2012.

In June 2012, we entered into a Vaccines Collaboration and Option Agreement with GSK, or the GSK VCO Agreement, to collaborate on research regarding the application of our PRINT technology to specified inhaled therapies. In March 2015, GSK made a one-time payment of $5.0 million to extend the agreement for 13 months through April 30, 2016, and such payment was amortized into revenue over that extension period. We and GSK mutually agreed to terminate this agreement in April 2016, and we will not recognize any further revenues under this agreement. Revenues from research and development services under the

GSK VCO Agreement amounted to $1.3 million and $0 for the years ended December 31, 2016 and 2017, respectively.

In June 2012, we also entered into an Inhaled Collaboration and Option Agreement with GSK, or the GSK ICO Agreement, under which we granted GSK exclusive options and licenses to further develop and commercialize inhaled therapies using our PRINT technology. In September 2015, GSK exercised its option to obtain an exclusive, worldwide license to certain of our know-how and patents relating to our PRINT technology, for the purpose of, among others, conducting preclinical studies of inhaled therapeutics developed, manufactured or otherwise produced using our PRINT technology. In consideration for GSK's exercise of this option, we received a non-refundable up-front payment of $15.0 million, which amount is being amortized into revenue over a period of time based on the estimated remaining development period and on a similar basis as research and development services are expected to be performed, a period of 54 months as of March 31, 2018. Under the terms of the GSK ICO Agreement, we are also entitled to certain milestone payments aggregating up to $158 million upon the achievement of specified milestone events, and tiered royalties on the worldwide sales of the licensed products at percentages in the mid-single digits. In February 2016, we received a $3.0 million payment from GSK upon the achievement of a clinical development milestone. We recognized the full amount of this payment as revenue in the year ended December 31, 2016. Revenues from research and development services under the GSK ICO Agreement amounted to $2.9 million and $3.1 million for the years ended December 31, 2016 and 2017, respectively, and $0.8 million and $0.2 million for the three months ended March 31, 2017 and 2018, respectively.

In December 2017, GSK informed us of its modified plans under the GSK ICO Agreement that reduced its requirements and budget for our research and development support in 2018. As a result, we expect revenues from research and development services under the GSK ICO Agreement to be less than $250,000 during 2018. In response, in January 2018, we reduced our research and development workforce accordingly, and we anticipate that we will incur approximately $400,000 in expense relating to the workforce reduction.

We also entered into other engagements with GSK under the GSK ICO Agreement, primarily for platform research services. As of June 15, 2018, GSK is conducting a Phase 1 clinical trial of an inhaled COPD product candidate that is formulated as an inhaled dry powder using the PRINT technology. In June 2018, GSK notified us of its intention to review continuation of development of an inhaled antiviral for viral exacerbations in COPD, part of the GSK ICO Agreement, after completion of its related Phase 1 clinical trial. Such continuation is subject to GSK management approval. We believe that GSK will likely not continue further development of the COPD program. GSK continues to express an interest in using PRINT technology for new inhaled programs, though no specific assets have been identified at this time. We and GSK are actively negotiating rights for us to develop and commercialize additional inhaled programs.

G&W Laboratories

In June 2016, we entered into a development and license agreement, or the G&W Labs Agreement, with G&W Laboratories, Inc., or G&W Labs, to develop multiple products for topical delivery in dermatology using our PRINT technology. We received the first non-refundable up-front fee of $1.0 million under this agreement in June 2016, which amount is being amortized into revenue over a period of time based upon the estimated remaining development period and on a similar basis as research and development services are expected to be performed, a period of 63 months as of March 31, 2018. We began performing research and development services under this agreement in July 2016. In April 2018, we and G&W Labs mutually agreed to terminate the G&W Labs Agreement.

Gates Foundation

In 2011, we entered into a collaboration agreement with the Bill & Melinda Gates Foundation, primarily for research services related to developing vaccines targeted at developing markets. We received an up-front fee

of $1.0 million under this agreement, which we recognized as revenue through December 2017. As of the date of this prospectus, we are not performing any services under this collaboration agreement and do not expect to recognize any further revenue under the agreement.

Components of Statements of Operations

Revenue

Our revenue is primarily derived from collaborating and licensing our proprietary PRINT technology to pharmaceutical companies. In the future, we also expect to derive our revenue from our own pharmaceutical products. We report financial information in the following two business segments:

Pharmaceutical Products. We utilize our proprietary PRINT technology to develop novel product candidates, such as LIQ861 and LIQ865. We have not commenced the commercialization of any pharmaceutical products and have not recognized any product revenues to date for this business segment. We intend to commercialize LIQ861 independently in the United States and to evaluate our commercialization and development plans for LIQ865. Outside of the United States, we intend to pursue the regulatory approval and commercialization of LIQ861 and LIQ865 with leading pharmaceutical companies with regional expertise. Revenues from these licensing arrangements would be recognized in this segment. In addition, if LIQ861 or LIQ865 is approved for marketing, we expect to recognize any revenues from sales of that product in this segment.

Partnering and Licensing. We also utilize our proprietary PRINT technology to enable the development of product candidates by other pharmaceutical companies. We perform research and development services for third parties in the areas of particle formulation and manufacturing and charge market billing rates. We typically receive up-front fees or technology access payments, as well as milestone payments for each phase of clinical achievement. If any of these drug products achieve commercialization, we also expect to be eligible to receive royalties from sales of those drug products. For the years ended December 31, 2016 and 2017 and the three months ended March 31, 2018, all of our revenue from our license and collaboration agreements described above was part of our Partnering and Licensing segment.

For the years ended December 31, 2016 and 2017, the majority of our revenue from collaborating and licensing our proprietary PRINT technology to pharmaceutical companies was derived under two separate agreements with GSK, which we refer to as the GSK VCO Agreement and the GSK ICO Agreement. These two arrangements with GSK accounted for $11.8 million and $6.1 million in revenue for the years ended December 31, 2016 and 2017, respectively, representing 90% and 84% of our total revenue for the years ended December 31, 2016 and 2017, respectively. For the three months ended March 31, 2017 and 2018, a substantial amount of our revenue from collaborating and licensing our proprietary PRINT technology to pharmaceutical companies was derived from the GSK ICO Agreement. This arrangement with GSK accounted for $1.5 million and $0.4 million in revenue for the three months ended March 31, 2017 and 2018, respectively, representing 92% and 47% of our total revenue for the three months ended March 31, 2017 and 2018, respectively. This revenue comprised billings for research and development services, milestone payments and amortization of deferred revenue from up-front payments. However, because GSK has informed us of certain modifications to its development plans under the GSK ICO Agreement, we do not expect to receive significant amounts from GSK for the year ending December 31, 2018.

Cost of Sales

Cost of sales consists of the amortization of license fees owed to UNC upon our receipt of licensing revenues. See "Business — Our Collaboration and Licensing Agreements — The University of North Carolina at Chapel Hill" for further details. The amortization period is the same as the period over and in the same manner in which the related revenue is recognized.

Research and Development Expenses

Research and development expense consists of expenses incurred in connection with the development of our product candidates. We expense research and development costs as incurred. These expenses include:

- expenses incurred under agreements with CROs, as well as investigative sites and consultants that conduct our clinical trials and preclinical studies;
- manufacturing scale-up expenses and the cost of acquiring and manufacturing preclinical and clinical trial materials and commercial materials, including manufacturing validation batches;
- outsourced professional scientific development services;
- employee-related expenses, which include salaries, benefits and stock-based compensation for personnel in research and development functions;
- expenses relating to regulatory activities, including filing fees paid to regulatory agencies;
- laboratory materials and supplies used to support our research activities; and
- allocated expenses for utilities and other facility-related costs.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect our research and development expenses to increase significantly over the next several years as we increase personnel costs, including stock-based compensation, conduct our ongoing Phase 3 clinical trial of LIQ861, continue the development of LIQ865 and conduct other clinical trials and prepare regulatory filings for our product candidates.

The successful development of our product candidates is highly uncertain. At this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the remainder of the development of, or when, if ever, material net cash inflows may commence from any of our product candidates. This uncertainty is due to the numerous risks and uncertainties associated with the duration and cost of clinical trials, which vary significantly over the life of a project as a result of many factors, including:

- the number of clinical sites included in the trials;
- the length of time required to enroll suitable patients;
- the number of patients that ultimately participate in the trials;
- the number of doses patients receive;
- the duration of patient follow-up; and
- the results of our clinical trials.

Our expenditures are subject to additional uncertainties, including the terms and timing of regulatory approvals, and the expense of filing, prosecuting, defending and enforcing any patent claims or other intellectual property rights. We may never succeed in achieving regulatory approval for any of our product candidates. We may obtain unexpected results from our clinical trials. We may elect to discontinue, delay or modify clinical trials of some product candidates or focus on others. A change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that product candidate. For example, if the FDA or other regulatory authorities were to require us to conduct clinical trials beyond those that we currently anticipate, or if we experience significant delays in enrollment in any of our clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development. Drug commercialization will take several years and millions of dollars in development costs.

General and Administrative Expenses

General and administrative expenses consist principally of salaries and related costs for personnel in executive, administrative, finance and legal functions, including stock-based compensation, travel expenses and recruiting expenses. Other general and administrative expenses include facility related costs, patent filing and prosecution costs and professional fees for marketing, legal, auditing and tax services and insurance costs.

We anticipate that our general and administrative expenses will increase as a result of increased personnel costs, including stock-based compensation, expanded infrastructure and higher consulting, legal and tax-related services associated with maintaining compliance with stock exchange listing and SEC requirements, accounting and investor relations costs, and director and officer insurance premiums associated with being a public company. We anticipate the additional costs for these services will increase our general and administrative expenses by approximately $1.5 million to $2.0 million on an annual basis. Additionally, if and when we believe a regulatory approval of a product candidate appears likely, we anticipate an increase in payroll and expense as a result of our preparation for commercial operations, especially as it relates to the sales and marketing of our product candidate.

Other Income (Expense)

Other income (expense) is comprised primarily of interest expense and derivative and warrant fair value adjustments. Interest expense consists of interest charges on capital leases and long-term debt. These charges include monthly recurring interest on such obligations in addition to non-cash charges. Non-cash charges include the accrual of interest expense at the end of each reporting period in addition to the expensing of discounts on long-term debt to interest expense. Derivative and warrant fair value adjustments consist of the unrealized gains and losses as a result of marking these financial instruments to fair market value at the end of each reporting period.

Results of Operations

Three Months ended March 31, 2017 and 2018

The following table summarizes our results of operations:

	Three Months Ended March 31,	
	2017	2018
	(in thousands)	
Revenues	$ 1,639	$ 926
Costs and expenses:		
Cost of sales	80	27
Research and development	6,176	7,626
General and administrative	2,151	2,150
Total costs and expenses	8,407	9,803
Loss from operations	(6,768)	(8,877)
Other income (expense):		
Interest income	—	—
Interest expense	(2,246)	(17,877)
Derivative and warrant fair value adjustments	(823)	(754)
Total other income (expense)	(3,069)	(18,631)
Net loss	$ (9,837)	$ (27,508)

Revenues

Revenues were $0.9 million for the three months ended March 31, 2018, compared to $1.6 million for the three months ended March 31, 2017. The decrease of $0.7 million, or 43.8%, was due to a change in estimates extending the amortization period for deferred revenue, lower research and development services performed and the adoption of Accounting Standards Codification, or ASC, 606, *Revenue from Contracts with Customers*, or ASC 606. Our revenues attributable to the GSK ICO Agreement were $0.4 million and our revenues attributable to other customers was $0.5 million during the three months ended March 31,

2018. Under the GSK ICO Agreement, we received an up-front payment of $15.0 million in 2015. We are amortizing this payment into revenue over a period of approximately seven years, resulting in revenues of $0.2 million during the three months ended March 31, 2018. Effective January 1, 2018, we adopted ASC 606. In addition, management revised the estimated performance periods under our collaboration agreements to reflect the current circumstances such that the weighted average time period that management was amortizing up-front and milestone payments was increased from approximately 29 months to approximately 48 months. The combined effect of adoption of ASC 606 and the change in estimates was a decrease in revenue for the three months ended March 31, 2018 by $0.5 million as compared to the three months ended March 31, 2017. In addition, we performed research and development services under these agreements and recognized revenues of $0.7 million for such services during the three months ended March 31, 2018 as compared to $0.8 million during the three months ended March 31, 2017.

Cost of Sales

Our cost of sales was $27,049 for the three months ended March 31, 2018, compared to $79,940 for the three months ended March 31, 2017. Cost of sales represents sub-licensing fees paid to UNC resulting from our recognition of licensing revenue from intellectual property that we in-licensed from UNC. This amount, like the corresponding revenue, was attributable to our Partnering and Licensing segment.

Research and Development Expenses

Our research and development expenses were $7.6 million for the three months ended March 31, 2018, compared to $6.2 million for the three months ended March 31, 2017. The increase of $1.4 million, or 22.6%, was due to the commencement of the Phase 3 clinical trial of LIQ861 in late December 2017. Research and development expenses consisted of $5.0 million from the Pharmaceutical Products segment, of which $4.7 million and $0.3 million were attributable to our ongoing development of LIQ861 and LIQ865, respectively, $0.4 million from the Partnering and Licensing segment, and $2.2 million from general research and development that was not directly related to a particular segment.

General and Administrative Expenses

Our general and administrative expenses were $2.1 million for the three months ended March 31, 2018, compared to $2.2 million for the three months ended March 31, 2017. General and administrative expenses are mainly the result of personnel expenses, including stock-based compensation, as well as legal and consulting fees and tax expense.

Loss from Operations

We recorded a loss from operations of $8.9 million in the three months ended March 31, 2018, compared to $6.8 million for the three months ended March 31, 2017. The increase of $2.1 million, or 30.9%, was primarily due to a decrease in revenues and an increase in research and development expenses during the three months ended March 31, 2018 as compared to the three months ended March 31, 2017.

Other Income (Expense)

Interest income was less than $1,000 for the three months ended March 31, 2017 and 2018.

Interest expense was $17.9 million for the three months ended March 31, 2018, compared to $2.2 million for the three months ended March 31, 2017. During the three months ended March 31, 2018, we had higher levels of debt, including convertible notes of $27.4 million, bank borrowings of $8.8 million, and amounts owed to CSC and UNC of $1.6 million and $2.3 million, respectively. The increase in interest expense of $15.7 million was primarily due to amortization of discounts on convertible notes of $17.6 million. The unamortized discounts on convertible notes of $17.6 million as of December 31, 2017 was being amortized through the maturity date of the notes, which was December 31, 2018. The amortization of the discounts was accelerated by the early conversion of the notes into Series D preferred stock in February 2018.

Derivative and warrant fair value adjustments were consistent for the three months ended March 31, 2018, as compared to the three months ended March 31, 2017.

Years ended December 31, 2016 and 2017

The following table summarizes our results of operations:

	Year ended December 31,	
	2016	2017
	(in thousands)	
Revenues	$ 13,217	$ 7,258
Costs and expenses:		
Cost of sales	919	320
Research and development	23,320	24,754
General and administrative	4,841	10,212
Total costs and expenses	29,080	35,286
Loss from operations	(15,863)	(28,028)
Other income (expense):		
Interest income	15	—
Interest expense	(86)	(13,010)
Derivative and warrant fair value adjustments	—	11,884
Total other income (expense)	(71)	(1,126)
Net loss	$ (15,934)	$ (29,154)

Revenues

Revenues were $7.3 million for the year ended December 31, 2017, compared to $13.2 million for the year ended December 31, 2016. The decrease of $6.0 million, or 45%, was due to a decrease of $3.0 million in non-refundable milestone payments recognized as revenue in 2016 from the GSK ICO Agreement and a decrease of $2.9 million related to revenue recognized in 2016 from the GSK VCO Agreement which was terminated in April 2016. Our revenues of $7.3 million in the year ended December 31, 2017 consisted primarily of $6.1 million attributable to the GSK ICO Agreement. Under the GSK ICO Agreement, we received an up-front payment of $15.0 million in 2015. We are amortizing this payment into revenue over a five-year period, resulting in revenues of $3.0 million during the year ended December 31, 2017. In addition, we performed research and development services under this agreement and recognized revenues of $3.1 million for such services during the year ended December 31, 2017. In addition to GSK, in June 2016, we entered into the G&W Labs Agreement under which we received an up-front payment of $1.0 million. We are amortizing this payment into revenue over a five-year period, resulting in revenue of $0.2 million during the year ended December 31, 2017. In addition, we performed research and development services under this agreement and recognized revenues of $0.2 million and $0 for such services during the years ended December 31, 2016 and 2017, respectively. In addition, in February 2011, we entered into a collaboration agreement with the Bill & Melinda Gates Foundation, primarily for research services related to developing vaccines targeted at developing markets under which we received an up-front payment of $1.0 million. We are amortizing this payment into revenue over a 6.75 year period, resulting in revenue of $0.2 million and $0.2 million during the years ended December 31, 2016 and 2017, respectively. In addition, we performed research and development services under various collaboration agreements with other companies and recognized revenue of $0.9 million and $0.8 million for such services during the years ended December 31, 2016 and 2017, respectively.

Cost of Sales

Our cost of sales was $0.3 million for the year ended December 31, 2017, compared to $0.9 million for the year ended December 31, 2016. The decrease of $0.6 million, or 65%, was due to a $0.3 million

license fee paid to UNC in 2016 related to the $3.0 million non-refundable milestone payment from the GSK ICO Agreement, and a $0.3 million license fee amortization in 2016 related to the GSK VCO Agreement, neither of which recurred in 2017. Cost of sales represents sub-licensing fees paid to UNC resulting from our recognition of licensing revenue from intellectual property that we in-licensed from UNC. This amount was attributable to our Partnering and Licensing segment.

Research and Development Expenses

Our research and development expenses were $24.8 million for the year ended December 31, 2017, compared to $23.3 million for the year ended December 31, 2016. The increase of $1.5 million, or 6%, was due to the completion of a Phase 1 study and preparation of a Phase 3 study of LIQ861, in addition to the completion of one Phase 1 study and ongoing work on a second Phase 1 study for LIQ865. Research and development expenses consisted of $5.0 million from the Partnering and Licensing segment, $13.6 million from the Pharmaceutical Products segment, of which $8.4 million and $5.2 million were attributable to our ongoing development of LIQ861 and LIQ865, respectively, and $6.2 million from general research and development that was not directly related to a particular segment.

General and Administrative Expenses

Our general and administrative expenses were $10.2 million for the year ended December 31, 2017, compared to $4.8 million for the year ended December 31, 2016. The increase of $5.4 million, or 111%, was due to transaction costs related to our deferred potential initial public offering on a foreign exchange contemplated during 2017, and increases in staff and consultants. General and administrative expense are mainly the result of personnel expenses, including stock-based compensation, as well as legal and consulting fees and tax expense.

Loss from Operations

We recorded a loss from operations of $28.0 million in the year ended December 31, 2017, compared to $15.9 million for the year ended December 31, 2016. The increase of $12.1 million, or 77%, was primarily due to a decrease in revenues and an increase in general and administrative expenses during the year ended December 31, 2017.

Other Income (Expense)

Interest income was less than $1,000 for the year ended December 31, 2017 compared to $14,900 for the year ended December 31, 2016. The decrease of $14,600 was due to lower average balances in interest-bearing accounts during the year ended December 31, 2017.

Interest expense was $13.0 million for the year ended December 31, 2017, compared to $0.1 million for the year ended December 31, 2016. During 2017, we had higher levels of debt including convertible notes of $27.4 million, bank borrowings of $9.1 million, an amount owed to UNC of $2.3 million, and existing capital lease obligations of $0.9 million. The increase in interest expense of $12.9 million was primarily due to amortization of discount on convertible notes of $9.8 million, the expensing of debt issuance costs to interest expense of $1.4 million and the recognition of accrued interest on the convertible notes, bank borrowings and capital lease obligations of $1.8 million.

Derivative and warrant fair value adjustments were $11.9 million for the year ended December 31, 2017, compared to $0 for the year ended December 31, 2016. This increase was due to decreases in the fair value of derivatives and warrants of $9.9 million and $2.0 million, respectively, for the year ended December 31, 2017. Derivatives and warrants were issued in conjunction with convertible note financings during the year ended December 31, 2017. The decreases in the fair value of derivatives and warrants were primarily due to the impact of the Series D financing that closed in February 2018, the terms of which were known at December 31, 2017, which implied lower fair values for the derivatives and warrants than previously estimated.

Liquidity and Capital Resources

Overview

We have financed our growth and operations through a combination of funds generated from our licensing revenues, the issuance of convertible preferred stock and common stock, capital leases, bank borrowings and the issuance of convertible notes. Our principal uses of cash have been for working capital requirements and capital expenditures. We monitor our net operating cash flow and maintain a level of cash deemed adequate by our management for working capital purposes.

As of March 31, 2018, we had a stockholders' deficit of $7.2 million and working capital (defined as current assets less current liabilities) of $4.2 million. Our cash balance was $17.6 million as of March 31, 2018.

Sources of Liquidity

We have financed a portion of our working capital through debt instruments. We maintain a $10.0 million term loan facility with PWB for working capital purposes. As of March 31, 2018, we had fully utilized our facility with PWB. The facility is secured by all of our assets other than intellectual property. We may not encumber our intellectual property without the consent of PWB. The outstanding principal amount under the loan facility bears interest at 5.0% per annum. Of the current amount outstanding, the loan matures with respect to $3.0 million in January 2020, with the remainder being due and payable in October 2020. Our credit facility with PWB contains restrictions that limit our flexibility in operating our business. We may not, among other things, without the prior written consent of PWB, (a) pay any dividends or make any other distribution or payment on account of or in redemption, retirement or purchase of any capital stock except in certain prescribed circumstances, (b) create, incur, assume, guarantee or be or remain liable with respect to any indebtedness except certain permitted indebtedness or prepay any indebtedness, (c) replace or suffer the departure of our Chief Executive Officer or Chief Financial Officer without delivering written notification to PWB within 10 days of such change or (d) suffer a change on our Board which results in the failure of at least one partner of either NEA or Canaan or their respective affiliates to serve as a voting member. We have, in the past, breached multiple covenants in our loan and security agreement related to cash levels, reporting requirements and required periodic deliverables to PWB. PWB has provided waivers in relation to all such prior breaches. Furthermore, pursuant to our credit facility with PWB, we are required at all times to maintain a balance of cash at PWB of at least $8.0 million. The credit facility also contains a covenant related to the observation of materially adverse data in our Phase 3 clinical trial of LIQ861 on or before December 31, 2018.

During the year ended December 31, 2017 and the three months ended March 31, 2018, we had outstanding a promissory note to UNC. As of December 31, 2016 and 2017, the outstanding balance of this note payable was $2.2 million and $2.3 million, respectively. As of March 31, 2018, the outstanding balance of this note payable was $2.3 million. The note is unsecured and bears interest at a rate equal to one-year LIBOR plus 3%, compounded annually. The UNC Note is due and payable in full on December 31, 2018.

In a series of closings from January 9, 2017 to November 29, 2017, we issued and sold an aggregate of $27.4 million underlying a total of 27 unsecured subordinated convertible promissory notes, each accruing simple interest at a rate of 8.0% per annum.

In February 2018, we issued and sold an aggregate of 91,147,482 shares of Series D preferred stock at a price per share equal to $0.59808. Of the 31 investors that participated in this offering, 10 investors purchased an aggregate of 42,863,825 shares of Series D preferred stock for an aggregate purchase price of $25.6 million and 26 holders of outstanding convertible notes in the aggregate amount of $28.9 million converted their notes into an aggregate of 48,283,657 shares of Series D preferred stock.

The total amount of outstanding principal and accrued interest on our unsecured subordinated convertible promissory notes was $28.6 million as of December 31, 2017 and $0 as of March 31, 2018. On February 2, 2018, the outstanding principal and accrued interest underlying each of the notes converted

into shares of Series D preferred stock. Upon the closing of this offering, the shares of outstanding preferred stock will convert automatically into shares of common stock.

Cash Flows

The following table summarizes our sources and uses of cash for the periods indicated:

	Year Ended December 31,		Three Months Ended March 31,	
	2016	2017	2017	2018
	(in thousands)		(in thousands)	
Net cash provided by (used in):				
Operating activities	$ (13,947)	$ (24,290)	$ (9,042)	$ (10,000)
Investing activities	(2,885)	(2,544)	(51)	(257)
Financing activities	6,110	28,814	15,704	24,432
Net (decrease) increase in cash	$ (10,722)	$ 1,980	$ 6,611	$ 14,175

Operating Activities

Net cash used in operating activities increased $1.0 million, from $9.0 million for the three months ended March 31, 2017 to $10.0 million for the three months ended March 31, 2018. The increase was mainly due to the increase in net loss. The primary drivers of operating cash requirements were our research and development and general and administrative activities in each period. For the three months ended March 31, 2018, net cash used in operating activities was $10.0 million, which comprised mainly operating cash outflows before working capital changes of $8.4 million, and net working capital outflows of $1.6 million.

Net cash used in operating activities increased $10.3 million, from $13.9 million for the year ended December 31, 2016 to $24.3 million for the year ended December 31, 2017. The increase was mainly due to the increase in net loss. The primary drivers of operating cash requirements were our research and development and general and administrative activities in each period. For the year ended December 31, 2017, net cash used in operating activities was $24.3 million, which comprised mainly operating cash outflows before working capital changes of $24.7 million, and net working capital inflows of $0.4 million.

Investing Activities

Net cash used in investing activities increased $0.2 million, from $51 thousand for the three months ended March 31, 2017 to $0.3 million for the three months ended March 31, 2018. The increase was due to increased purchases of property, plant and equipment.

Net cash used in investing activities decreased $0.4 million, from $2.9 million for the year ended December 31, 2016 to $2.5 million for the year ended December 31, 2017. The decrease was due to decreased purchases of property, plant and equipment.

Financing activities

Net cash provided by financing activities increased $8.7 million, from $15.7 million for the three months ended March 31, 2017 to $24.4 million for the three months ended March 31, 2018. For the three months ended March 31, 2018, net cash provided by financing activities of $24.4 million was primarily due to net proceeds from the sale of Series D preferred stock of $25.6 million and proceeds from the exercise of stock options of $0.2 million, partially offset by principal payments on debt of $1.1 million.

Net cash provided by financing activities increased $22.7 million, from $6.1 million for the year ended December 31, 2016 to $28.8 million for the year ended December 31, 2017. For the year ended December 31, 2017, net cash provided by financing activities of $28.8 million was primarily due to proceeds from long-term debt of $31.4 million comprised of $4.0 million related to debt with PWB and

convertible notes of $27.4 million, which was offset by $1.4 million in debt issuance costs. In addition, we received proceeds from the exercise of stock options and warrants of $0.1 million. The aggregate proceeds from financing activities were partially offset by principal payments on debt of $1.3 million.

Funding Requirements

We plan to focus in the near term on the development, regulatory approval and potential commercialization of LIQ861 and LIQ865. We anticipate we will incur net losses for the next several years as we complete clinical development of these product candidates and continue research and development of additional product candidates. In addition, we plan to continue to invest in discovery efforts to explore additional product candidates, potentially build commercial capabilities and expand our corporate infrastructure. We may not be able to complete the development and initiate commercialization of these programs if, among other things, our clinical trials are not successful or if the FDA does not approve our product candidates arising out of our current clinical trials when we expect, or at all.

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, clinical costs, external research and development services, laboratory and related supplies, legal and other regulatory expenses and administrative and overhead costs. Our future funding requirements will be heavily determined by the resources needed to support development of our product candidates.

Following this offering, we will be a publicly traded company and will incur significant legal, accounting and other expenses that we were not required to incur as a private company. In addition, the Sarbanes-Oxley Act, as well as rules adopted by the SEC and Nasdaq, requires public companies to implement specified corporate governance practices that are currently inapplicable to us as a private company. We expect these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly.

We believe that the anticipated net proceeds from this offering, together with our existing cash, will enable us to fund our operating expenses and capital expenditure requirements until at least , including the completion of our ongoing Phase 3 clinical trial for LIQ861 and the initiation of our Phase 2-enabling toxicology studies in 2018 for LIQ865. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect. We expect that we will require additional capital to commercialize our product candidates, if we receive regulatory approval, and to pursue in-licenses or acquisitions of other product candidates. If we receive regulatory approval for LIQ861 or LIQ865, we expect to incur significant commercialization expenses related to product manufacturing, sales, marketing and distribution, depending on where we choose to commercialize. Additional funds may not be available on a timely basis, on favorable terms, or at all, and such funds, if raised, may not be sufficient to enable us to continue to implement our long-term business strategy. If we are unable to raise sufficient additional capital, we may need to substantially curtail our planned operations and the pursuit of our growth strategy.

We may raise additional capital through the sale of equity or convertible debt securities. In such an event, your ownership will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a holder of our common stock.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical drugs, we are unable to estimate the exact amount of our working capital requirements. Our future funding requirements will depend on many factors, including:

- the number and characteristics of the product candidates we pursue;
- the scope, progress, results and costs of researching and developing our product candidates, and conducting preclinical studies and clinical trials;
- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates;
- the cost of manufacturing our product candidates and any product we successfully commercialize;

- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation; and
- the timing, receipt and amount of sales of, or milestone payments related to or royalties on, our current or future product candidates, if any.

See "Risk Factors" for additional risks associated with our substantial capital requirements.

Critical Accounting Policies and Significant Judgments and Estimates

This management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities in our financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to long-lived assets, derivatives, stock-based compensation and accrued expenses. We base our estimates on historical experience, known trends and events and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in the notes to our consolidated financial statements appearing elsewhere in this prospectus, we believe the following accounting policies to be the most critical to the judgments and estimates used in the preparation of our financial statements.

Going Concern

Our operations have consisted primarily of developing our technology, developing products, prosecuting our intellectual property and securing financing. We have incurred recurring losses and cash flows from operations, have an accumulated deficit and have debt maturing within twelve months. The accompanying financial statements have been prepared on a basis which assumes that we will continue as a going concern. We have incurred losses and cash outflows from operations since our inception. We expect to continue to incur losses in the foreseeable future and will require additional financial resources to continue to advance our products and intellectual property, in addition to repaying our maturing debt obligations. These circumstances raise substantial doubt about our ability to continue as a going concern. Management's plans with regard to this matter include continuing attempts to obtain additional financing from our current investors and new investors to sustain our operations or to pursue other financing alternatives. However, there is no assurance that we will be successful in obtaining sufficient financing on terms acceptable to us and our failure to obtain sufficient funds on acceptable terms, when needed, could have a material adverse effect on our business, results of operations and financial condition. If sufficient financings do not occur, this may necessitate other actions by us. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Revenue Recognition

Our revenues are generated through license, collaboration and other similar research and development agreements. These agreements include up-front fees, payments for achievement of specified development, regulatory and sales milestones and provision for billing for research and development services like particle formulations and manufacturing, all of which comprise our revenues. In addition, such agreements provide for royalties on product sales after commercial launch of the related products. We record any amounts received in advance of services performed as deferred revenue and recognize them as revenue over the estimated period of our substantive performance obligations.

In May 2014, the Financial Accounting Standards Board, or the FASB, issued Accounting Standards Update, or ASU, 2014-09, *Revenue from Contracts with Customers*, or Topic 606. The FASB issued

Topic 606 to clarify the principles for recognizing revenue and to develop a common revenue standard for GAAP. The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes the most current revenue recognition guidance. Topic 606 also includes Subtopic 340-40, *Other Assets and Deferred Costs—Contracts with Customers*, which requires the deferral of incremental costs of obtaining a contract with a customer and certain contract fulfillment costs. We adopted this standard and all the related amendments, or the new revenue standard, on January 1, 2018, applying the modified retrospective transition method. The modified retrospective transition method is applied on a prospective basis from the adoption date and does not recast historical financial statement periods. Any contracts with customers that were not complete as of the adoption date are reviewed and we recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of accumulated deficit as of January 1, 2018. Financial information in comparative periods have not been restated and continue to be reported under the accounting methods in effect for that period.

This adoption primarily affected the recognition of non-refundable up-front fees and milestone payments. We previously recognized non-refundable up-front fees as deferred revenue which was recognized into revenue on a straight-line basis over the estimated period of our substantive performance obligations, as a component of a multiple element arrangement. Milestone payments were previously accounted for under ASC 605-28-50-2(e), which had required recognition of a milestone payment when the applicable event was considered to be both substantive and achieved. The adoption of the new revenue standard generally requires licenses that are not considered distinct performance obligations from other goods or services within a contract to be bundled with those goods or services as a combined performance obligation. Revenue associated with the combined performance obligation is recognized over time as those goods or services are delivered.

The adoption of the new revenue standard also impacted the deferral of sublicense payments related to the milestone payments, which were previously expensed when the milestone payments were recognized, and the timing of recognition of deferred sublicense payments related to upfront license payments. Under the new revenue standard, the incremental sublicense payments related to milestone payments will be deferred as contract fulfillment costs and amortized over time, consistent with the method of recognition for the related revenues.

The cumulative effect of the changes made to the January 1, 2018 balance of accumulated deficit on our balance sheet for the adoption of Topic 606 was an increase to the accumulated deficit of $0.5 million.

Stock-Based Compensation

We account for stock-based compensation under ASC Topic 718, Compensation — Stock Compensation, or ASC 718. Determining the amount of stock-based compensation to be recorded requires us to determine estimates of fair values of stock options as of the grant date.

We account for stock-based compensation by measuring and recognizing compensation expense for all stock-based payments made to employees and directors based on estimated grant date fair values. We use the straight-line method to allocate compensation cost to reporting periods over each optionee's requisite service period, which is generally the vesting period. We estimate the fair value of our stock-based awards to employees and directors using the Black-Scholes option-pricing model, or the Black-Scholes Model. The Black-Scholes Model requires the input of subjective assumptions, including the expected stock price volatility, the calculation of expected term and the fair value of the underlying common stock on the date of grant, among other inputs. The risk-free interest rate was determined with the implied yield currently available for zero-coupon U.S. government issues with a remaining term approximating the expected life of the options.

All stock-based awards granted to non-employees are accounted for at their fair value in accordance with ASC 505, Accounting for Equity Instruments that are Issued to Other Than Employees for Acquiring, or in

Conjunction with Selling, Goods or Services, or ASC 505, under which compensation expense is generally recognized over the vesting period of the award.

As there has been no public market for our common stock to date, the estimated fair value of our common stock has been determined by our board of directors, or our Board, as of the date of each option grant, with input from management, considering our most recently available third-party valuations of common stock and our Board's assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. Our common stock valuations were prepared using the hybrid method, which used market approaches and, in the November 8, 2016 and February 2, 2018 valuations, initial public offering pre-money valuation estimates provided by management, to estimate our enterprise value. The hybrid method is a probability-weighed expected return method, or PWERM, where the equity value in one or more of the scenarios is calculated using an option-pricing method, or OPM. The OPM treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceeded the value of the preferred stock liquidation preferences at the time of the liquidity event, such as a strategic sale or a merger. The PWERM is a scenario-based methodology that estimates the fair value of common stock based upon an analysis of future values for the company, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available as well as the rights of each class of stock. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate, a discount for lack of marketability is applied to each indication, and probability weighted to arrive at an indication of value for the common stock. Third-party valuations were performed at various dates by CapVal-American Business Appraisers, LLC, which resulted in valuations of our common stock of $0.35 per share as of November 8, 2015, $1.21 as of November 8, 2016, $0.55 per share as of February 2, 2018 and $0.67 per share as of March 31, 2018. In addition to considering the results of these third-party valuations, our board of directors considered various objective and subjective factors to determine the fair value of our common stock as of each grant date, which may be a date later than the most recent third-party valuation date, including:

- the prices at which we sold shares of preferred stock and the superior rights and preferences of the preferred stock relative to our common stock at the time of each grant;
- the progress of our research and development programs, including the status of preclinical studies and planned clinical trials for our product candidates;
- our stage of development and commercialization and our business strategy;
- external market conditions affecting the pharmaceutical and biotechnology industries, and trends within the biotechnology industry;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results;
- the lack of an active public market for our common stock and our preferred stock;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company in light of prevailing market conditions; and
- the analysis of initial public offerings and the market performance of similar companies in the biopharmaceutical industry.

The assumptions underlying these valuations represent management's best estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our stock-based compensation expense could be materially different.

Options Granted

The following table sets forth by grant date the number of shares subject to options granted between January 1, 2016 and the date of this prospectus, the per share exercise price of the options and the fair value of common stock per share on each grant date:

Grant Date	Number of Shares Subject to Options Granted	Per Share Exercise Price of Options	Fair Value of Common Stock Per Share on Grant Date
February 10, 2016	645,139	$ 0.35	$ 0.35
August 10, 2016	465,617	$ 0.35	$ 0.35
August 30, 2016	235,000	$ 0.35	$ 0.35
December 7, 2016	150,000	$ 1.21	$ 1.21
March 15, 2017	219,000	$ 1.21	$ 1.21
May 31, 2017	18,000	$ 1.21	$ 1.21
March 7, 2018[(1)]	13,645,767	$ 0.55	$ 0.55
March 27, 2018	25,000	$ 0.55	$ 0.55
June 19, 2018	1,189,500	$ 0.67	$ 0.67

(1) We also issued 2,146,767 restricted stock units on March 7, 2018 to Kevin Gordon, our new President and Chief Financial Officer.

For stock awards after the completion of this offering, our Board intends to determine the fair value of each share of underlying common stock based on the closing price of our common stock as reported on the date of grant.

The intrinsic value of all outstanding options as of the date of this prospectus was $ million based on the estimated fair value of our common stock of $ per share, which is the assumed initial public offering price per share of our common stock based on the midpoint of the estimated price range set forth on the cover of this prospectus.

If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, we may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense. To the extent that our assumptions are incorrect, the amount of stock-based compensation recorded will change.

Convertible Instruments

We have utilized various types of financing to fund our business needs, including convertible debt and convertible preferred stock, in some cases with corresponding warrants. We considered guidance within FASB ASC 470-20, *Debt with Conversion and Other Options*, or ASC 470-20, ASC 480, *Distinguishing Liabilities from Equity*, or ASC 480, and ASC 815, *Derivatives and Hedging*, or ASC 815, when accounting for the issuance of convertible securities. Additionally, we review the instruments to determine whether they are freestanding or contain an embedded derivative and, if so, whether they should be classified in permanent equity, mezzanine equity or as a liability at each reporting period until the amount is settled and reclassified into equity.

When multiple instruments are issued in a single transaction, we allocate total proceeds from the transaction among the individual freestanding instruments identified. The allocation is made after identifying all the freestanding instruments and the subsequent measurement basis for those instruments.

The subsequent measurement basis determines how the proceeds are allocated. Generally, proceeds are allocated based on one of the following methods:

- Fair value method—The instrument being analyzed is allocated a portion of the proceeds equal to its fair value, with the remaining proceeds allocated to the other instruments as appropriate.
- Relative fair value method—The instrument being analyzed is allocated a portion of the proceeds based on the proportion of its fair value to the sum of the fair values of all the instruments covered in the allocation.
- Residual value method—The instrument being analyzed is allocated the remaining proceeds after an allocation is made to all other instruments covered in the allocation.

Generally, when there are multiple instruments issued in a single transaction that have different subsequent measurement bases, the proceeds from the transaction are first allocated to the instrument that is subsequently measured at fair value (i.e., instruments accounted for as a derivative liabilities) at its issuance date fair value, with the residual proceeds allocated to the instrument not subsequently measured at fair value. In the event both instruments in the transaction are not subsequently measured at fair value (i.e., equity-classified instruments), the proceeds from the transaction are allocated to the freestanding instruments based on their respective fair values, using the relative fair value method.

After the proceeds are allocated to the freestanding instruments, resulting in an initial discount on the host contract, those instruments are further evaluated for embedded features (i.e., conversion options) that require bifurcation and separate accounting as a derivative financial instrument pursuant to ASC 815. Embedded derivatives are initially and subsequently measured at fair value. Under ASC 815, a portion of the proceeds received upon the issuance of the hybrid contract is allocated to the fair value of the derivative.

We account for convertible instruments in which it is determined that the embedded conversion options should not be bifurcated from their host instruments in accordance with ASC 470-20. Under ASC 470-20, we record, when necessary, discounts to convertible notes or convertible preferred stock for the intrinsic value of conversion options embedded in the convertible instruments based upon the differences between the fair value of the underlying common stock at the commitment date of the transaction and the effective conversion price embedded in the convertible instrument, unless limited by the proceeds allocated to such instrument.

Warrant Liabilities

We have classified warrants to purchase shares of Series C-1 preferred stock as liabilities on our balance sheets as these warrants were free-standing financial instruments that will require us to issue convertible securities upon exercise. The warrants were initially recorded at fair value on date of grant, and they will be subsequently remeasured to fair value at each reporting period. Changes in fair value of the warrants are recognized as a component of other income (expense) in our statements of operations and comprehensive loss. We will continue to adjust the liabilities for changes in fair value at each reporting period until the warrant liabilities are settled. Following the completion of this offering and the conversion of preferred stock into common stock, we will no longer include the warrant liabilities on the balance sheet or recognize changes in their fair value in the statements of operations and comprehensive loss since they will then be exercisable into shares of common stock.

We used the Black-Scholes option pricing model, which incorporates assumptions and estimates, to value the preferred stock warrants. We assessed these assumptions and estimates on a quarterly basis as additional information impacting the assumptions was obtained. Estimates and assumptions impacting the fair value measurement included the fair value per share of the underlying Series C-1 preferred stock, the remaining contractual term of the warrant, the risk-free interest rate, the expected dividend yield and the expected volatility of the price of the underlying preferred stock. We determined the fair value per share of the underlying preferred stock by taking into consideration the most recent sales of our convertible preferred stock, results obtained from third-party valuations and additional factors that were deemed relevant. We estimated our expected stock volatility based on the historical volatility of publicly traded peer companies

for a term equal to the remaining contractual term of the warrant. The risk-free interest rate was determined by reference to the U.S. Treasury yield curve for time periods approximately equal to the remaining contractual term of the warrant. Expected dividend yield was based on the fact that we have never paid cash dividends and do not expect to pay any cash dividends in the foreseeable future.

Embedded Derivatives

Embedded derivatives that are required to be bifurcated from the underlying instrument are accounted for and valued as a separate financial instrument. In conjunction with our convertible instruments, embedded derivatives exist associated with the future consummation of a qualified financing event, as defined, and a subsequent discounted conversion of the instrument to capital stock. The embedded derivatives are bifurcated and classified as derivative liabilities on the balance sheets and separately adjusted to their fair values at the end of each reporting period. Changes in fair values of the derivative liabilities are recognized as a component of other income (expense) in the statements of operations and comprehensive loss.

Issuance Costs Related to Equity and Debt

We allocate issuance costs between the individual freestanding instruments identified on the same basis as proceeds were allocated. Issuance costs associated with the issuance of stock or equity contracts (i.e., equity-classified warrants and convertible preferred stock) are recorded as a charge against the gross proceeds of the offering. Any issuance costs associated with the issuance of liability-classified warrants are expensed as incurred. Issuance costs associated with the issuance of debt (i.e., convertible debt) are recorded as a direct reduction of the carrying amount of the debt liability, but limited to the notional value of the debt. We account for debt as liabilities measured at amortized cost and amortizes the resulting debt discount to interest expense using the straight-line method over the expected term of the notes pursuant to ASC 835, *Interest* (ASC 835). To the extent that the reduction from issuance costs of the carrying amount of the debt liability would reduce the carrying amount below zero, such excess is recorded as interest expense.

Income Taxes

We file U.S. Federal income tax returns and North Carolina State tax returns. Our deferred tax assets primarily consist of Federal and State tax net operating losses and tax credit carryforwards and are recorded using enacted tax rates expected to be in effect in the years in which these temporary differences are expected to be utilized. As of March 31, 2018, we had Federal net operating loss carryforwards of $96.9 million that begin to expire in 2027 for Federal purposes and $97.9 million that begin to expire in 2022 for State purposes. The utilization of the credit carryforwards to reduce future income taxes will depend on our ability to generate sufficient taxable income prior to the expiration of the carryforwards. We may be subject to the net operating loss utilization provisions of Section 382 of the Code. The effect of an ownership change would be the imposition of an annual limitation on the use of net operating loss carryforwards attributable to periods before the change. The amount of the annual limitation depends upon our value immediately before the ownership change, changes to our capital during a specified period prior to the change and the Federal published interest rate. Our management estimates and records a valuation allowance against deferred tax assets when realization of the tax benefit is uncertain. A valuation allowance is recorded, if necessary, to reduce net deferred taxes to their realizable values if our management does not believe it is more likely than not that the net deferred tax assets will be realized.

On December 22, 2017, the Tax Cuts and Jobs Act, or the TCJA, was enacted into law. This new law includes significant changes to the U.S. corporate income tax system, including a permanent reduction in the corporate income tax rate from 35% to 21%, limitations on the deductibility of interest expense and executive compensation and the transition of U.S. international taxation from a worldwide tax system to a territorial tax system. The TCJA also limits interest expense deductions to 30% of taxable income before interest, depreciation and amortization from 2018 to 2021 and then taxable income before interest thereafter. The TCJA permits disallowed interest expense to be carried forward for five years. We have calculated our best estimate of the impact of the TCJA in our year-end income tax provision in accordance with our understanding of the TCJA and guidance available at the time. The overall impact of the TCJA resulted in a decrease to the deferred tax assets and a corresponding decrease to the valuation allowance of

$14.1 million. Using the guidance issued by the SEC staff in Staff Accounting Bulletin No. 118, we expect to complete the accounting for the TCJA when our 2017 U.S. federal income tax return is filed in 2018.

Research and Development Expenses

When preparing our financial statements, we are required to estimate our research and development expenses. This process involves reviewing open contracts and communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost. Payments under some of the contracts we have with parties depend on factors, such as successful enrollment of certain numbers of patients, site initiation and the completion of clinical trial milestones. When accruing clinical expenses, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If possible, we obtain information regarding unbilled services directly from our service providers. However, we may be required to estimate the cost of these services based only on information available to us. If we underestimate or overestimate the cost associated with a trial or service at a given point in time, adjustments to research and development expenses may be necessary in future periods. Historically, our estimated research and development expenses have approximated actual expenses incurred.

Fair Value of Financial Instruments

The carrying values of cash, accounts receivable, accounts payable and related party receivables at March 31, 2018 approximated their fair value due to the short maturity of these instruments.

Our valuation of financial instruments is based on a three-tiered approach, which requires that fair value measurements be classified and disclosed in one of three tiers. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

- Level 1 — Quoted prices in active markets for identical assets or liabilities;
- Level 2 — Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly; and
- Level 3 — Unobservable inputs for the asset and liability used to measure fair value, to the extent that observable inputs are not available.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

JOBS Act

As an "emerging growth company" under the JOBS Act, we can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected to "opt out" of this provision and, as a result, we will comply with new or revised accounting standards when they are required to be adopted by public companies that are not emerging growth companies.

Subject to certain conditions, as an emerging growth company, we intend to rely on certain of these exemptions, including without limitation:

- only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure about our executive compensation arrangements;
- no advisory votes on executive compensation or golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the

earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of 2023; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock.

Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2017.

	Payments Due by Period (in thousands)				
	Less than 1 Year	1-3 Years	3-5 Years	More Than 5 Years	Total
Long-term debt obligations[1]	$ 33,180	$ 5,577	$ —	$ —	$ 38,757
Operating lease obligations[2]	968	2,019	2,128	4,159	9,274
Capital lease obligations[3]	489	530	—	—	1,019
Purchase obligations[4]	8,093	1,745	—	—	9,838
Total	$ 42,730	$ 9,871	$ 2,128	$ 4,159	$ 58,888

(1) Consists of our (i) $9.1 million balance under our loan facility with PWB, (ii) $2.3 million promissory note issued to UNC, and (iii) $27.4 million of convertible notes, which were converted into Series D preferred stock in February 2018.

(2) Consists of obligations under (i) two multi-year, non-cancelable building leases for our facilities in Morrisville, North Carolina, which expire on October 31, 2026, (ii) our agreement with Chasm Technologies, Inc. for services related to our manufacturing facilities, and (iii) copier equipment under a lease which expires in 2019.

(3) Consists of (i) leases for specialized lab equipment and (ii) an agreement with a commercial manufacturer to build a PRINT particle fabrication line.

(4) Consists of other contracts entered into in the normal course of business with CROs, clinical trial sites and manufacturing organizations and with vendors for preclinical studies, research suppliers and other services and products for operating purposes. These contracts generally provide for termination by either party after a notice period.

We have two leases for our facilities in Morrisville, North Carolina. In January 2017, the leases were amended to extend the term through October 31, 2026. Our contractual commitments under the leases as of December 31, 2017 total $9.3 million.

We have drawn down an aggregate of $10.0 million from our loan agreement with PWB as of December 31, 2017. Our contractual commitments under the LSA as of December 31, 2017 consist of an aggregate of $9.1 million in repayment obligations, inclusive of related interest amounts. See "—Liquidity and Capital Resources—Sources of Liquidity" for additional information regarding the LSA.

This table does not include any potential milestone or royalty payments we may be required to make under the UNC License because the amount and timing of when those payments will actually be made is uncertain and the payments are contingent upon the initiation and completion of future activities.

Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks related to changes in foreign currency exchange rates and interest rates.

We contract with suppliers in foreign countries. As such, we have exposure to adverse changes in exchange rates of foreign currencies, principally the Euro, associated with our foreign transactions. We believe this

exposure to be immaterial. We currently do not hedge against this exposure to fluctuations in exchange rates.

Our exposure to market risk also relates to interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. As of December 31, 2017, excluding capital leases and excluding convertible notes that were converted into Series D preferred stock in February 2018, our aggregate outstanding indebtedness was $11.3 million, which bears interest at rates varying from 3.75% to 5.0% or LIBOR plus 3.0%. Due to the short-term duration of our indebtedness, an immediate one percentage point change in interest rates would not have a material effect on our financial position or results of operations.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

BUSINESS

Overview

We are a late-stage clinical biopharmaceutical company focused on the development and commercialization of human therapeutics using our proprietary PRINT® technology to transform the lives of patients. PRINT is a particle engineering platform that enables precise production of uniform drug particles designed to improve the safety, efficacy and performance of a wide range of therapies. We are currently focused on the development of two product candidates for which we hold worldwide commercial rights: LIQ861 for the treatment of pulmonary arterial hypertension, or PAH, and LIQ865 for the treatment of local post-operative pain. Our lead product candidate, LIQ861, is being evaluated in a Phase 3 trial. LIQ861 is an inhaled dry powder formulation of treprostinil designed to improve the therapeutic profile of treprostinil by enhancing deep-lung delivery and achieving higher dose levels than current inhaled therapies. We have applied our PRINT technology to enable us to deliver LIQ861 through a convenient, disposable dry powder inhaler, or DPI. Our second product candidate, LIQ865, for which we have recently completed a Phase 1b clinical trial, is designed to deliver sustained-release particles of bupivacaine, a non-opioid anesthetic, to treat local post-operative pain for three to five days through a single administration. In addition to developing our two product candidates, we collaborate, and intend to collaborate, with leading pharmaceutical companies to develop their own product candidates across a wide range of therapeutic areas, molecule types and routes of administration, leveraging our PRINT technology.

Our lead product candidate, LIQ861, is an inhaled, dry powder formulation of treprostinil designed for enhancing deep-lung delivery using a convenient DPI for the treatment of PAH, a chronic, progressive disease caused by the hardening and narrowing of the pulmonary arteries that can lead to right heart failure and eventually death. Treprostinil is a synthetic analog of prostacyclin, a vasoactive mediator essential to normal lung function that is deficient in patients with PAH. PAH is a rare disease, with an estimated prevalence in the United States expected to be between 25,000 and 30,000 patients by 2020. Decision Resources Group, an independent industry research firm, estimated that in 2016 more than 50% of patients with PAH in the United States were prescribed treprostinil across its three routes of administration (oral, inhaled and parenteral infusion), generating revenue that represented about one-third of the approximately $3.7 billion U.S. market for PAH drug therapies. The inhaled route of administration, in which medication is inhaled directly into the lungs, helps minimize the off-tissue adverse side effects of systemic delivery by delivering the drug directly where it is needed. Tyvaso® (treprostinil, inhaled solution), marketed by United Therapeutics Corporation in the United States, is the standard of care among the inhaled therapies, with more than 80% of inhaled prostacyclin sales in the United States. Current inhaled therapies, including Tyvaso, are delivered by a nebulizer, a device that converts a liquid formulation into mist, and require between four and nine doses per day. Nebulizers require regular care and maintenance, including daily cleaning and access to additional parts and supplies, such as distilled water and a power source, all of which compromise the portability of the device and the quality of life of patients.

We believe LIQ861, if approved, will be the first-to-market inhaled dry powder treprostinil that can be delivered using a convenient, palm-sized, disposable DPI. We believe LIQ861 can overcome the limitations of current inhaled therapies and has the potential to maximize the therapeutic benefits of treprostinil in treating PAH by safely delivering higher doses into the lungs. Based on our *in vitro* studies we believe that the precise size, trefoil-like shape and uniformity of each LIQ861 particle may provide deep-lung delivery of treprostinil and may reduce deposition in the upper airway where irritation and pain have been observed with nebulized treprostinil. In March 2017, we completed a Phase 1 trial of LIQ861 in 57 healthy volunteers in which LIQ861 was well-tolerated at all doses tested up to 150 mcg, which we estimate is equivalent to approximately twice the maximum recommended dosage of Tyvaso, and showed a proportional dose-response in pharmacokinetics. We estimate that the 75 mcg dose of LIQ861, delivered in one to two breaths, is approximately equivalent to the maximum recommended dosage of Tyvaso (54 mcg, delivered in nine breaths). After consultation with the U.S. Food and Drug Administration, or the FDA, we advanced

from this Phase 1 trial into our current single, pivotal Phase 3 trial, known as INSPIRE, or Investigation of the Safety and Pharmacology of Dry Powder Inhalation of Treprostinil. We will seek approval of LIQ861 under the 505(b)(2) pathway, which would allow us to rely in part on the FDA's previous findings of efficacy and safety of Tyvaso and the active ingredient treprostinil, which has been approved in four different products administered through the continuous infusion (parenteral), inhaled and oral routes. In January 2018, we announced the initiation of INSPIRE evaluating LIQ861 for the treatment of PAH in the United States. If approved, we believe LIQ861 will have the potential to increase the number of patients using the inhaled route of treatment for PAH by providing the benefits of inhaled prostacyclin therapy earlier in a patient's disease progression as well as delaying the burden of starting continuously infused products. As of June 26, 2018, 22 patients have enrolled in the 100-patient INSPIRE trial at eight trial sites and we have contracted a total of 22 trial sites to enroll patients. The study is designed to evaluate patients who have either been under stable treatment with nebulizer-delivered treprostinil for at least three months and are transitioned to LIQ861 under the protocol or who have been under stable treatment with no more than two non-prostacyclin oral PAH therapies for at least three months and have their treatment regimen supplemented with LIQ861 under the protocol. Our first patient was enrolled in the INSPIRE trial on March 15, 2018. Of the total enrolled patient population, as of June 26, 2018, 16 patients have received at least two weeks of LIQ861 at a stable dose. Two weeks is the first scheduled patient assessment.

Our second product candidate, LIQ865, is an injectable, sustained-release formulation of bupivacaine for the management of local post-operative pain for three to five days after a procedure. We believe LIQ865, if approved, has the potential to provide significantly longer local post-operative pain relief compared to currently marketed formulations of bupivacaine. We estimate that there were over 40 million surgeries in our target market, which consists of orthopedic and soft tissue surgeries, performed in the United States in 2016. According to IMS Health, an independent market research firm, the global market for local anesthetics was approximately $776 million in 2016. Despite current pain-management protocols, post-operative pain is still undermanaged, with studies showing that approximately 50% of patients self-report inadequate pain relief. Post-operative pain management is becoming more important as surgeries increase in volume and complexity and hospitals seek treatments that support faster recovery and time to discharge. Concurrently, the risk of opioid abuse and diversion has led physicians, payors and the U.S. federal government to prioritize pain management strategies that minimize reliance on opioids. Local anesthetics, such as bupivacaine, provide a well-established, non-opioid option for post-operative pain management, but their duration of efficacy has been limited to eight hours or less. The FDA has approved one long-acting local anesthetic, liposomal bupivacaine, but pain relief typically lasts only 24 to 36 hours, according to physicians, and its use in combination with other local anesthetics can result in an unsafe release of drug. In LIQ865, we have engineered the size and composition of the LIQ865 PRINT particles to release bupivacaine over three to five days through a single administration. We completed a Phase 1a clinical trial of LIQ865 in Denmark and a Phase 1b clinical trial in the United States. We expect to initiate Phase 2-enabling toxicology studies for LIQ865 in the second half of 2018 which are expected to be followed by an additional Phase 2-enabling toxicology study in 2019, subject to the availability of sufficient funding.

Both LIQ861 and LIQ865 are being developed using our proprietary PRINT particle engineering technology, which allows us to engineer and manufacture highly uniform drug particles with independent control over their size, three-dimensional geometric shape and chemical composition. By controlling these physical and chemical parameters of particles, PRINT enables us to target and design desirable pharmacological benefits into product candidates, including prolonged duration of drug release, increased drug loading, a more convenient method of administration, novel combination products, enhanced storage and stability and the potential to reduce adverse side effects. We have scaled PRINT manufacturing to meet the demands of clinical development and, we believe, commercial production. Our approach enables us to design and produce custom micro- and nano-particles containing existing or new small molecule drugs or biologics. For example, we have engineered LIQ861 so that each particle has an ideal aerodynamic size and shape for deep-lung delivery. Our PRINT particle engineering technology also allows us to design the chemical

composition of particles to control drug release ranging from minutes, days, weeks or months as needed to meet a target profile, such as LIQ865's three to five day release of bupivacaine.

Initially, our internal pipeline is focused on the development of improved and differentiated drug products containing FDA-approved active pharmaceutical ingredients, or APIs, with established efficacy and safety profiles, which we believe are eligible for the 505(b)(2) regulatory pathway to seek marketing approval in the United States. The 505(b)(2) regulatory pathway can be capital efficient and potentially enable a shorter time to approval. We intend to seek marketing approval in the United States for LIQ861 and LIQ865 under the 505(b)(2) regulatory pathway, which would allow us to rely in part on existing knowledge of the safety and efficacy of the reference listed drugs. The FDA has indicated that it considers LIQ861, which is delivered by a DPI, to be a drug-device combination product and, accordingly, the DPI will be evaluated as part of our new drug application, or NDA, filing.

In addition to building our own internal pipeline, we collaborate with leading pharmaceutical companies to develop their own product candidates, leveraging our PRINT technology across a wide range of therapeutic areas, molecule types and routes of administration. Through our collaboration arrangement with GlaxoSmithKline plc and its subsidiaries, collectively, GSK, we apply PRINT technology to novel molecules. If our product candidates receive marketing approval, we plan to commercialize them in the United States by establishing our own sales force and commercial infrastructure. Outside of the United States, we intend to pursue the regulatory approval and commercialization of our product candidates with leading pharmaceutical companies with regional expertise. We intend to manufacture our product candidates using in-house capabilities. Where appropriate, we will rely on contract manufacturing organizations, or CMOs, to produce, package and distribute our approved drug products on a commercial scale.

Product Pipeline

The following table summarizes key information about clinical-stage product candidates being developed using PRINT technology.

Product	Indication	Formulation & Route	Phase 1	Phase 2	Phase 3	Next Key Milestone	Worldwide Commercial Rights
LIQ861[1]	PAH	Dry powder inhalation				Safety data 1H:19	Liquidia
LIQ865	Local, post-operative pain	Sustained-release injectable				Ph2-enabling studies commencing 2H:18	Liquidia

1. After consultation with the FDA, we advanced from a Phase 1 trial directly to a single, pivotal Phase 3 trial and will seek approval under the 505(b)(2) pathway.

Our Strategy

Our goal is to develop and commercialize medicines with improved and differentiated product profiles based on our PRINT particle engineering technology. To achieve this goal, we intend to execute the following key elements of our business strategy:

- ***Complete the pivotal, safety and pharmacology Phase 3 trial for our lead product candidate, LIQ861, in PAH.*** We initiated INSPIRE, a single, open-label Phase 3 trial, in 100 patients with PAH. We believe, based on feedback from the FDA, that this will support the NDA filing for our novel inhaled dry powder inhaled formulation of treprostinil to treat PAH. We expect to release safety data from INSPIRE in the first half of 2019.

- ***Advance our local post-operative pain product candidate, LIQ865, through Phase 2-enabling toxicology studies.*** We completed a Phase 1a clinical trial of LIQ865, our novel long-acting formulation of bupivacaine, in Denmark in March 2017, and a Phase 1b clinical trial in the United States in April 2018. We expect to initiate Phase 2-enabling toxicology studies in the second half of 2018 which are expected to be followed by an additional Phase 2-enabling toxicology study in 2019, subject to the availability of sufficient funding.

- ***Secure regulatory approval and commercialize our internal product candidates independently in the United States and with leading pharmaceutical companies globally.*** We hold worldwide commercialization rights to LIQ861 and LIQ865. Subject to receiving marketing approval which we intend to pursue in the United States via the 505(b)(2) regulatory pathway, we intend to independently pursue the commercialization of LIQ861 in the United States by establishing targeted sales and marketing teams. After reviewing the results of all of our Phase 2-enabling toxicology studies for LIQ865, and subject to the availability of sufficient funding, we will develop and commercialize LIQ865 independently, if it is ultimately approved, or seek to license this product candidate to one or more third parties. Outside of the United States, we intend to pursue the regulatory approval and commercialization of LIQ861 and LIQ865 with leading pharmaceutical companies with regional expertise.

- ***Expand our internal pipeline leveraging our PRINT technology.*** We intend to continue targeting diseases where we believe our PRINT technology can improve the efficacy, safety and patient experience of current treatments that have been impaired by suboptimal drug product formulation and delivery. We plan to focus initially on the development of improved and differentiated drug products containing FDA-approved APIs with proven efficacy and safety profiles eligible to use the 505(b)(2) regulatory pathway. In addition, we may expand our clinical development of LIQ861 and LIQ865, where appropriate, into broader indications or new applications.

- ***Pursue strategic collaborations to maximize the value of products enabled by PRINT technology.*** In addition to advancing our own internal product candidates, we intend to continue collaborating with leading pharmaceutical companies to develop their own product candidates across a wide range of therapeutic areas, molecule types and routes of administration, leveraging our PRINT technology. Our collaborations help advance new PRINT capabilities, while adding to our intellectual property portfolio.

Our Competitive Strengths

We believe that we have several key strengths that have contributed to the development of our business and that will help us to realize our goal of becoming a biopharmaceutical company across research, development and commercialization activities. Our competitive strengths include:

- ***Our PRINT technology gives us the capability to overcome the constraints of conventional formulation and production methods and can be applied broadly across therapeutic areas, molecule types and routes of administration.*** Our PRINT technology allows us to precisely engineer drug particles in a wide variety of compositions, sizes and shapes and achieve a high level of control over the physical and chemical characteristics of drug particles, as compared to conventional formulation and production methods. PRINT particles can be designed to address specific pharmacological or therapeutic objectives, such as enhancing the route of administration, improving solubility, enhancing stability or extending therapeutic effects. Using our PRINT technology, we are able to engineer, among others, small molecule and biologic particles, single agent drug and combination drug particles and vaccine particles to improve efficacy, safety and convenience for patients. Our internal pipeline strategy is currently focused on developing proprietary innovations to currently approved drug products in order to minimize development risks and increase speed to market.

In particular, we have designed LIQ861 to maximize the therapeutic benefits of treprostinil in treating PAH by safely delivering higher doses into the lungs using a convenient, palm-sized, disposable DPI. We believe that this may lead to a more attractive product profile with a more convenient method of

administering the drug, as compared to the existing inhaled therapies that are currently available. We have also designed LIQ865 with the intention of providing patients with local post-operative analgesia for three to five days. We believe this would provide a longer period of pain relief than the existing local-acting pain drugs that are available, which could be a positive feature in light of interest in reducing the patient's reliance on opioids and non-steroidal anti-inflammatory drugs, or NSAIDs, for local post-operative pain management.

Our PRINT technology is broadly applicable — across therapeutic areas, molecule types and routes of administration — providing us with opportunities for future drug product development.

- ***We have scaled operations with rapid and cost-effective transition to clinical development and commercial production***. We believe our research and development operations and PRINT technology allow us to transition rapidly and cost-effectively from laboratory to clinical development and ultimately commercial-scale manufacture of drug particles. Utilizing well-established techniques from other roll-to-roll manufacturing processes, we have scaled PRINT technology to support the quality and quantity needs for clinical and, we believe, commercial production of our product candidates. The physical equipment for the PRINT technology requires a relatively small footprint, low capital investment and minimal operating costs. We believe our manufacturing facilities comply with the FDA's current good manufacturing practices, or cGMP, requirements.

- ***We have a strong proprietary position through a combination of patents, trade secrets, proprietary know-how and licensing arrangements.*** We protect our PRINT technology and the resulting engineered particles through a combination of patents, trade secrets, proprietary know-how and licensing arrangements. We have an active patent strategy that covers major geographic markets, including the United States, Europe and Japan. As of June 15, 2018, our patent portfolio, which includes patents and patent applications we own or co-own, as well as patents and patent applications we have licensed from third parties, such as the University of North Carolina at Chapel Hill, or UNC, comprises 88 issued patents and 42 pending patent applications worldwide. As we develop new product candidates, either independently or with collaborators, we will seek additional patent protection.

- ***We have strong capabilities in pharmaceutical research and clinical development.*** Our research and development team includes 26 employees, led by our senior management, and has extensive experience in clinical development and pharmaceutical research and development activities in our specific areas of research interest.

- ***We have a seasoned management team.*** Our team includes industry veterans with significant experience in drug discovery, development and commercialization. Members of our leadership team have worked across different segments of the pharmaceutical industry, including branded and generic pharmaceuticals, medical devices and manufacturing services. Prior to joining us, our Chief Executive Officer and director, Neal Fowler, served as president of Centocor, Inc., a subsidiary of Johnson & Johnson that is focused on the development and commercialization of biomedicines used to treat chronic inflammatory diseases. Additionally, our President and Chief Financial Officer, Kevin Gordon, previously served as executive vice president and chief operating officer and chief financial officer of Quintiles Transnational Holdings Inc. (now named IQVIA Holdings Inc.), a global biopharmaceutical services provider, and our Chief Operations Officer, Robert Lippe, previously served as executive vice president of operations and chief operations officer at Alexza Pharmaceuticals, Inc. Furthermore, our Senior Vice President, Product Development, Dr. Robert Roscigno, previously served as the executive vice president of GeNO, LLC, where he led the clinical development team working on a novel nitric oxide delivery system, and before that he served as the president and chief operating officer of Lung Rx, Inc., where he was part of the team responsible for bringing Tyvaso through Phase 3 development, and he previously served in multiple leadership positions at United Therapeutics Corporation and its subsidiaries, contributing to the successful development and worldwide commercialization of Remodulin™, which is treprostinil administered through subcutaneous or intravenous infusion, for the treatment of PAH. We believe that their experience enables us to

evaluate opportunities and build collaboration arrangements that match the breadth of the potential applications for our PRINT technology.

Our Product Candidates

LIQ861

Our lead product candidate, LIQ861, is an inhaled dry powder formulation of treprostinil designed using our PRINT technology to enhance deep-lung delivery using a convenient DPI for the treatment of PAH. We believe LIQ861 can overcome the limitations of current inhaled therapies and has the potential to maximize the therapeutic benefits of treprostinil in treating PAH by safely delivering higher doses into the lungs. If approved, we believe LIQ861 will have the potential to increase the number of patients using the inhaled route of treatment for PAH by providing the benefits of inhaled prostacyclin therapy earlier in a patient's disease progression as well as delaying the burden of starting continuously infused products.

Background on PAH

PAH is a chronic, progressive disease caused by the hardening and narrowing of pulmonary arteries that can lead to right heart failure and eventually death. Prostacyclin is a vasoactive mediator essential to normal lung function that is deficient in patients with PAH. With PAH, the elevated pressure in the pulmonary arteries strains the right side of the heart as it pumps blood to the lungs. The extra stress causes the heart to enlarge and become less flexible, compromising its ability to push blood out of the heart through the lungs and into the rest of the body. PAH initially presents as exertional dyspnea, lethargy and fatigue and may be confused with other disease states with similar symptoms. PAH often goes undiagnosed or misdiagnosed until symptoms become severe, with the mean time from onset of symptoms to correct diagnosis being more than two years in the United States. As PAH progresses and right ventricular failure develops, exertional chest pain, or angina, exertional syncope and peripheral edema may develop. Following confirmation of diagnosis based on hemodynamic parameters, treatment is recommended to lower pulmonary pressures and treat the symptoms of PAH.

PAH is part of a larger classification of pulmonary hypertension, or PH, which is divided into five groups based on the criteria of the World Health Organization, or WHO, as defined at the 5th World Symposium on Pulmonary Hypertension in Nice, France. WHO Group I is comprised of individuals with PAH.

PAH is a rare disease, with an estimated prevalence in the United States expected to be between 25,000 and 30,000 patients by 2020. Today, the mean age of diagnosis is 50 years according to both French and U.S. registries, with more women being diagnosed with PAH than men. Patients may have idiopathic PAH, in which no underlying cause can be determined, or a heritable form of the disease. A large number of PAH patients also have associated comorbidities such as congenital heart disease, HIV, connective tissue diseases like scleroderma, liver diseases, systemic hypertension, obesity, clinical depression, non-PAH related obstructive airways, sleep apnea and diabetes.

Due to delayed diagnosis, many patients already have an advanced form of PAH, requiring aggressive treatment combining multiple classes of therapy. The severity of PAH may be classified according to the heart failure guidelines of the New York Heart Association, or NYHA, based on how much patients are limited during physical activity and described by the American Heart Association as follows:

- NYHA Class I — No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation or dyspnea, which is shortness of breath.
- NYHA Class II — Slight limitation of physical activity. Comfortable at rest. Ordinary physical activity results in fatigue, palpitation or dyspnea.
- NYHA Class III — Marked limitation of physical activity. Comfortable at rest. Less than ordinary activity causes fatigue, palpitation or dyspnea.
- NYHA Class IV — Unable to carry on any physical activity without discomfort. Symptoms of heart failure at rest. If any physical activity is undertaken, discomfort increases.

As reported by Decision Resources Group, net revenue in the U.S. market for PAH drug therapies in 2016 was estimated to be $3.7 billion. Of such amount, $2.0 billion was generated from patients in NYHA Class III, $1.2 billion was generated from patients in NYHA Class II and an aggregate of $0.5 billion was generated from patients in NYHA Classes I and IV.

As the disease progresses, these symptoms cause significant negative impact on the quality of life of patients, limiting their ability to do common daily activities, including work, travel and previous hobbies. Patients also describe the emotional toll of PAH, including fear, frustration, embarrassment and stigma. The burden of care associated with currently available treatments can add further logistical and emotional burden to the patients.

Current Therapies and Their Limitations

There is currently no cure for PAH. The goals of existing treatments are to alleviate symptoms, maintain or improve NYHA functional class, delay disease progression and improve quality of life. Inhaled therapies are generally prescribed for, but not limited to, patients in NYHA Class II and Class III. Approved drugs target three distinct molecular pathways that have been implicated in the disease process: the prostacyclin pathway, the nitric oxide pathway and the endothelin pathway. Drugs targeting each of these pathways are used alone or in combination with each other to treat patients with PAH. Prostacyclin deficiency in the lung is a central dysfunction in PAH, but can be supplemented with prostacyclin analogs. Prostacyclin deficiency can also be managed with a recently approved selective IP prostacyclin receptor agonist, selexipag. Nitric oxide deficiency can be treated with phosphodiesterase-5, or PDE5, inhibitors, which target a specific enzyme, increasing vasodilation. Endothelin overexpression in PAH patients causes vasoconstriction of pulmonary vasculature, but can be treated with endothelin receptor antagonists, or ERAs. Many physicians start their PAH patients on oral PDE5 inhibitors, oral ERAs or both. Drugs targeted to the prostacyclin pathway are usually added to these oral therapies, but can be used alone.

Drugs targeting the prostacyclin pathway are central to PAH therapy. Prostacyclin is essential to normal lung function. In healthy people, prostacyclin, which is a vasoactive mediator, is continually released by lungs into arterial circulation to bind different receptors for different effects to regulate vessel tone, including direct vasodilation of pulmonary arteries, inhibition of the proliferation of smooth muscle cells within arteries and inhibition of platelet aggregation. To supplement the deficiency of prostacyclin in patients with PAH, several prostacyclin analogs have been developed including epoprostenol, which is administered intravenously; treprostinil, which can be administered intravenously, subcutaneously or in nebulized or oral formulations; and iloprost, which can be administered intravenously or in nebulized form. A new class of drugs called selective IP prostacyclin receptor agonists help stimulate some of the mechanisms that would otherwise be promoted by prostacyclin or an analog. Selexipag is an oral drug and the only approved molecule in this new class.

The goal of treatment targeting the prostacyclin pathway is to maximize a patient's exposure to the highest tolerable level of drug. Prostacyclin analogs, like treprostinil, have been developed for continuous infusion, either intravenously or subcutaneously, inhalation using a nebulizer and oral administration in the form of tablets. The maximal efficacy benefit of any one drug in the prostacyclin pathway is partially limited by its specific safety profile. Drugs treating the prostacyclin pathway, including oral treprostinil and IP prostacyclin receptor agonists such as selexipag, are limited by side effects from binding of the drug to receptors in non-targeted tissues, such as the gut and nerves, which can cause diarrhea, nausea and jaw pain. Nebulized solutions can have side effects including cough and upper airway irritation and pain caused by their topical irritant properties, which limits the amount of drug that can be given to the patient. As the disease progresses, patients will require continuous prostacyclin infusion to maximize drug exposure. Infusion pumps present unique risks related to infusion site pain and the risk of blood stream infections, and increase significant limitations on the quality of life of patients.

Delivering prostacyclin analogs locally to the lungs by inhalation has been effective and generates fewer systemic side effects. Inhalation of prostacyclin analogs supplements the endogenous production of

prostacyclin where it is normally synthesized, near the targeted pulmonary arteries. As a result, inhalation of prostacyclin analogs helps avoid adverse events related to off-target tissues and takes advantage of binding key prostacyclin receptors that are preferentially expressed in the lung. The only inhaled prostacyclin analogs approved by the FDA are Tyvaso and Ventavis, which both require nebulizers.

Decision Resources Group reported that more than 80% of PAH patients on inhaled therapy in the United States used Tyvaso in 2016. In 2016, Tyvaso and Ventavis generated $405 million and $73 million, respectively, in total sales in the United States. Tyvaso is approved in the United States and Israel but is not approved in Europe and Japan. Tyvaso is indicated for the treatment of PAH to improve exercise ability. The maximum recommended dose of Tyvaso is 54 mcg, delivered four times daily from a proprietary nebulizer, requiring nine breaths for each dose. In a long-term open-label extension study of Tyvaso, patients continued treatment for a mean duration of 2.3 years, with 89% of patients achieving the target dose of 54 mcg, delivered in nine breaths, and 42% achieving a dose of 72 mcg, delivered in 12 breaths.

Ventavis is approved in the United States, Europe and Japan. Ventavis is nebulized six to nine times a day during waking hours, no more than once every two hours, and takes six to ten minutes to administer per use. Ventavis is a synthetic analog of prostacyclin indicated for the treatment of PAH to improve a composite endpoint consisting of exercise tolerance, symptoms and lack of deterioration.

Tyvaso and Ventavis require the use of proprietary nebulizers. Patients must follow specific instructions to set up and operate the device, clean the device daily, locate a power source or use a battery to operate the device, and carry the device and its associated accessories around in a large carrying case, along with distilled water, to administer the treatment throughout the day. As a result, the use of these approved inhaled prostacyclin therapies is typically limited to patients who have not responded to oral medications that target the three pathways. The current medical practice is to administer both an inhaled drug product and the patient's existing oral ERA and/or PDE5 drug product concurrently, instead of withdrawing the administration of the oral drug product upon initiation of the inhaled drug product.

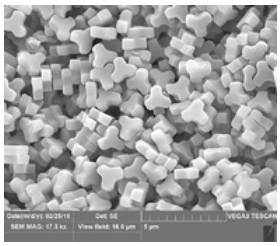
Potential Benefits of Our Approach

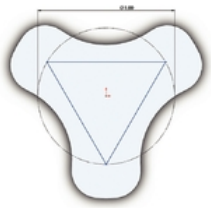
We believe LIQ861 can overcome the limitations of current nebulized therapies and has the potential to maximize the therapeutic benefits of treprostinil in treating PAH by safely delivering higher doses into the lungs using a convenient, palm-sized, disposable DPI. In our Phase 1 trial, LIQ861 was well-tolerated at doses twice as high as the maximum recommended dosage of Tyvaso. These higher doses of inhaled dry powder treprostinil can also be administered in fewer breaths. Each dose of LIQ861 can be administered in one to four breaths, compared to nine breaths for the maximum recommended dosage of Tyvaso. Additionally, we believe LIQ861 may have the potential to improve overall patient adherence and quality of life by offering the convenience of a discrete, palm-sized, disposable DPI. In our market research, patients expressed a preference for a DPI product, noting that it can fit easily into a purse, minimize hassle while traveling and reduce the breaths and time associated with their current nebulized treatments.

The advantages of the LIQ861 product profile are enabled by the PRINT technology. Each LIQ861 particle is designed to enhance delivery and deep-lung penetration. LIQ861 particles are a precise size and highly uniform since particles are formed from mold cavities that exactly match each other. Competing technologies, such as spray-drying, create particles that have a broader variation in shape and size. As a result, particles farther from the mean target size would be too large or too small to reach the intended location in the deep lung.

Inspired by a naturally occurring pollen, LIQ861 PRINT particles have a one micrometer trefoil-shape measured by an inscribed one micrometer circle as shown in the figure below. *In vitro* studies suggest that the uniformity of size and shape allow our inhaled particles to target delivery into the lungs while depositing less in the upper airways. Our independent control of the parameters of drug particles has enabled us to create the first clinically tested formulation that stabilizes treprostinil in an inhaled dry powder formulation.

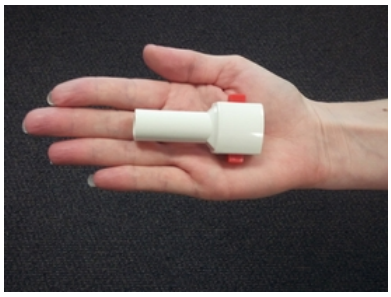
The figures below depict LIQ861, with the figure on the left showing size and shape consistency among particles and the figure on the right showing their trefoil shape:





LIQ861 is administered using RS00 Model 8 DPI, a DPI manufactured by Plastiape S.p.A. There are products approved in the United States and Europe containing this device. This device and its variants have been used in at least eight marketed products globally since 2001, including Novartis's Foradil Aerolizer®, for the treatment of asthma and chronic obstructive pulmonary disease, or COPD.

The picture below shows the DPI used to administer LIQ861:



Clinical Development

In March 2017, we completed a Phase 1 trial of LIQ861 in 57 healthy volunteers. In January 2018, we announced the initiation of INSPIRE, our single, pivotal open-label Phase 3 clinical trial, evaluating LIQ861 for the treatment of PAH in the United States. We expect to announce safety data from INSPIRE in the first half of 2019. In the United States, we plan to seek approval of our NDA under the 505(b)(2) regulatory pathway, which would allow us to rely, in part, on the FDA's prior conclusions of efficacy and safety for Tyvaso and the active ingredient treprostinil, which has been approved in four different products administered through the continuous infusion, inhaled and oral routes.

Results of Phase 1 Trial

We conducted a randomized, placebo-controlled, double-blind, Phase 1 trial in 57 healthy volunteer subjects to assess safety, tolerability and pharmacokinetics following a single administration of LIQ861 at doses between 25 mcg and 150 mcg. The subjects were enrolled into six dose cohorts. Within each dose cohort, subjects were randomized to receive LIQ861 or a placebo.

Dose Selection

For the first-in-human study, the initial dose for LIQ861 was chosen based on the indicated dosing for the reference listed drug, Tyvaso. Independent investigations of particle emission using the RS00 Model 8 DPI and simulated inspiration of the bulk powder from a nebulizer led to a projection that a 25 mcg treprostinil capsule for dry powder inhalation would result in approximately similar treprostinil administration as three

breaths of Tyvaso, or 18 mcg of treprostinil, the lowest approved dose through nebulization. The following table shows LIQ861's doses tested along with our estimate of the equivalent Tyvaso dose.

Estimated Treprostinil Dose from LIQ861			Estimated Treprostinil Dose from Tyvaso	
Capsule (fill wt.)	Approx. Emitted Dose	Breaths[1]	Approx. Emitted Dose	Breaths[2]
25 mcg	20 mcg	1-2	18 mcg	3
50 mcg	40 mcg	1-2	36 mcg	6
75 mcg	60 mcg	1-2	54 mcg	9
100 mcg	80 mcg	1-2	Above maximum recommended dose	
125 mcg[1]	100 mcg	2-4	Above maximum recommended dose	
150 mcg[1]	120 mcg	2-4	Above maximum recommended dose	

(1) LIQ861 doses between 25 mcg and 100 mcg are single capsules. LIQ861 doses 125 mcg and 150 mcg are two capsules but if approved, they could be developed as single capsules and therefore only require one to two breaths.

(2) Tyvaso (treprostinil) full prescribing information: initial dosage: 3 breaths (18 mcg); maximum recommended dosage: 9 breaths (54mcg)

Our conclusion from this study is that the 75 mcg dose of LIQ861 is approximately equivalent to the maximum recommended dose of 54 mcg, or nine breaths, of Tyvaso, and the 150 mcg dose of LIQ861 is approximately double the maximum recommended dose of Tyvaso.

Safety and Tolerability

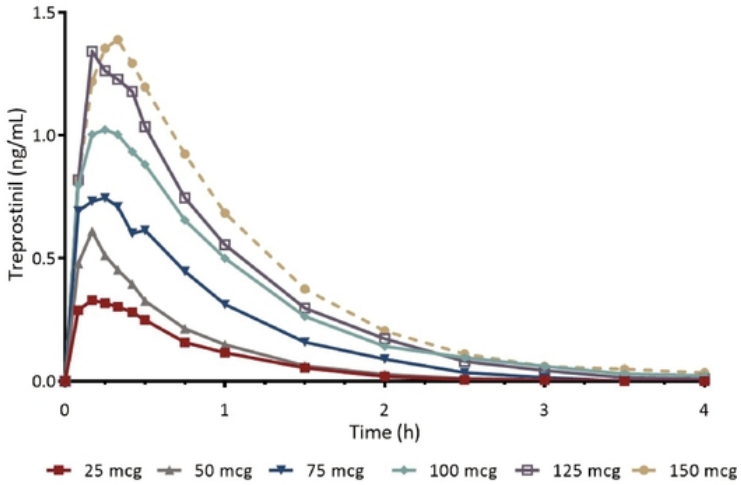
In the clinical trial, we escalated the dosage of LIQ861 progressively from 25 mcg to 150 mcg. There were no dose-limiting toxicities at the highest dose evaluated. We noted no serious adverse events or deaths and all reported treatment-emergent adverse events related to the treatment were mild. The most frequent adverse event reported by subjects on LIQ861 was mild cough and throat irritation.

We did not observe a proportional increase of adverse events as the doses were escalated from 25 mcg to 100 mcg. No adverse events were observed in subjects who received the placebo PRINT particles that contained only excipients.

Pharmacokinetics

In the trial, the LIQ861 plasma levels increased proportionally as the dosage of LIQ861 increased, as shown in the graph below. At higher doses, 50% of subjects receiving LIQ861 had measurable treprostinil after four hours, which could indicate the potential to minimize symptoms between dosing cycles.

LIQ861 Mean Concentration Over Time



The pharmacokinetic parameters in the table below were estimated from plasma samples. Nominal elapsed time from dosing was used to estimate all individual pharmacokinetic parameters, including:

- § C_{max} Maximum observed plasma concentration;
- § T_{max} Time of maximum concentration;
- § $T_{1/2}$ Terminal-phase half-life; and
- § AUC_{Inf} Area under the plasma concentration-time curve.

LIQ861 Pharmacokinetic Results

	Treprostinil by Dose (mcg)					
	25	50	75	100	125	150
C_{max} (ng/mL)	0.329	0.572	0.728	1.08	1.19	1.33
T_{max} (h)	0.21	0.18	0.25	0.29	0.24	0.31
$T_{½}$ (h)	0.507	0.434	0.617	0.722	0.523	0.648
AUC_{Inf} (h*ng/mL)	0.285	0.428	0.766	1.22	1.16	1.50

The LIQ861 blood levels, as determined by the area under the curve, which is a pharmacokinetic measurement of drug exposure in blood plasma over time, and the maximum concentration were similar to the data used in connection with the approval of Tyvaso, as reported in the FDA Summary Basis of Approval for Tyvaso. LIQ861 also had half-life in the blood similar to such data. These results suggest that our formulation has not changed the pharmacokinetic profile of inhaled treprostinil.

Results of Non-Clinical Studies

The pharmacology, pharmacokinetics and toxicology of treprostinil are well understood, having previously been characterized to support approval of Remodulin, which is treprostinil administered through subcutaneous or intravenous infusion, Orenitram®, which is treprostinil administered through extended release tablets, and Tyvaso, which is treprostinil inhaled through a proprietary nebulizer. We plan to rely in part on the data used in support of FDA approval of these treatments, in addition to our own toxicity studies, to support the development and approval of LIQ861.

In October 2016, we completed a 14-day, repeat dose, inhalation toxicity study in rats to support the Phase 1 trial. In August 2017, we completed a 26-week toxicology study in rats. In rats, pharmacokinetic profiles at the end of 14 days of LIQ861 treatment were generally similar to inhaled nebulized treprostinil delivered at similar treprostinil dose levels. Following 26 weeks of daily dosing, treprostinil exposure was slightly higher in LIQ861-treated rats. The results from this study support chronic outpatient dosing of LIQ861 in patients with PAH in our Phase 3 trial.

Phase 3 Trial

In January 2018, we announced the initiation of INSPIRE, our single, pivotal Phase 3 trial evaluating LIQ861 at doses between 25 mcg and 150 mcg for the treatment of PAH in the United States. INSPIRE is an open-label trial enrolling at least 100 patients with PAH across multiple sites in the United States. Primary endpoints are long-term safety and tolerability of LIQ861. Patients enrolled will have been on stable doses of Tyvaso for at least three months or will have been taking no more than two approved non-prostacyclin oral PAH therapies. A subset of patients will be enrolled in a one-directional crossover to compare bioavailability and pharmacokinetics of treprostinil as they transition from Tyvaso to LIQ861. We expect to announce safety data from INSPIRE in the first half of 2019.

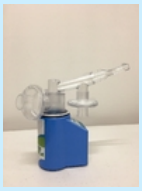
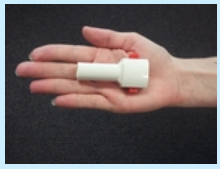
Additional Clinical Trials

We also intend to initiate a clinical trial in the second half of 2018 that explores the hemodynamic effects of LIQ861 in PAH patients. Although the FDA has not requested that we undertake this clinical trial, the data may help assess the effects of LIQ861 on acute and chronic hemodynamic measurements and right heart function. Data from this clinical trial would also add to our understanding of safety, tolerability and pharmacokinetics of LIQ861.

Commercial Opportunity

Decision Resources Group estimated that sales for all major PAH drugs in 2016 were more than $6.0 billion in the United States, France, Germany, Italy, Japan and the United Kingdom. In the United States, products approved to treat PAH through the prostacyclin deficient pathway generated approximately $1.7 billion in sales in 2016, of which the prostacyclin analog treprostinil generated the majority from products formulated for continuous infusion, inhalation using a nebulizer and oral delivery. The U.S. market for inhaled treatments through the prostacyclin deficient pathway was more than $450 million in 2016, of which Tyvaso accounted for more than 80%.

If approved, we believe LIQ861 would be the first inhaled dry powder formulation of treprostinil delivered using a convenient, palm-sized, disposable DPI. The dosing regimens and patient experience for the two approved inhaled therapies compared to the expected product profile of LIQ861 are shown in the following table.

	Ventavis (iloprost) inhalation solution	Tyvaso (treprostinil) inhalation solution	LIQ861 (treprostinil) dry powder for inhalation (expected)
Regulatory status	FDA approved, 2004	FDA approved, 2009	Enrolling Phase 3 study
Method of administration	Proprietary nebulizer	Proprietary nebulizer	Dry powder inhaler
Frequency	6 to 9 times daily	4 times daily	4 times daily
Dose range	2.5 to 5 mcg	18 to 72 mcg; (max recommended is 54 mcg)	25 to 150 mcg
Time or breaths per dose	4 to 10 minutes depending on breathing pattern	9 breaths (54 mcg)	1-2 breaths per capsule, with 1 or 2 capsules per dose
Supplies required	§ Ventavis Inhalation System § Power supply § Distilled water § 2 medication chamber assemblies § Washing basket § Battery charger § I-neb pouch § Carry bag § Power cord for charger § 2 Spare discs	§ Tyvaso Inhalation System § Rechargeable battery § 12V DC adapter § AC wall plug § 16 Medicine cups § Filter membranes § Plugs § Filter shell § Dome assembly with baffle plate § Inhalation piece § Mouthpiece § Water level cup § Carrying case § Distilled water carrier	§ Dry powder inhaler § Carrying pouch § Daily blister pack § Small cleaning brush
Picture			

Preferred choice within inhaled options. As reported in our market research, physicians and patients expressed a clear preference for the expected product profile of LIQ861 over current nebulized therapies, primarily due to the ease and convenience of administration of LIQ861. Nebulized therapies require more time and breaths than LIQ861, as well as daily and weekly assembly, disassembly and cleaning.

Attractive switch from orals. The ease and range of dosing LIQ861 may be attractive to patients who are in earlier stages of the disease, but poorly managed on oral prostacyclin products. Local delivery of treprostinil to the lung offers fewer systemic side effects. However, we believe some of these patients are hesitant to switch to more burdensome nebulized options.

Delay transition to continuous infusion. We are investigating a wide range of LIQ861 doses in order to maximize patient exposure to treprostinil, a key factor in the efficacy of prostacyclin analogs. In our Phase 1 trial, LIQ861 was well-tolerated at levels that we estimate are twice the maximum recommended dose of Tyvaso. We believe the dose range enabled by LIQ861 would allow patients to titrate to higher levels of treprostinil and potentially extend the time on inhaled therapy, delaying the eventual transition to continuous infusion.

Expand inhaled options outside the United States. We intend to develop and seek regulatory approval for LIQ861 for markets outside of the United States in order to provide an attractive choice that leverages the benefits of local delivery to the lung. Tyvaso is approved in the United States and Israel but is not approved in Europe and Japan. Ventavis is approved in the United States, Europe and Japan, but its use has been limited due to its delivery regimen. Decision Resources Group estimated that fewer than 10% of PAH patients in the United Kingdom, Germany, France, Italy and Spain, which we collectively refer to herein as the 5EU, use Ventavis. In Japan, Ventavis was approved in May 2016 as the first inhaled PAH treatment. The combined population of PAH patients in the 5EU and Japan was estimated to be more than 25,000 patients in 2016.

Expand beyond WHO Group I patients (PAH). Prostacyclin based therapies have only been approved for WHO Group I patients. However, prostacyclin analogs may have utility in the treatment of PH in other categories, as suggested by current off-label use in WHO Group III, which includes individuals with pulmonary hypertension secondary to lung diseases or hypoxemia, and WHO Group IV, which includes individuals with chronic thromboembolic pulmonary hypertension. Although we have no current plans to study LIQ861 in PH patients outside of WHO Group I, we will continue to monitor the investigations conducted by other companies and independent investigators of prostacyclin analogs, especially Tyvaso. If Tyvaso is approved for additional indications, the path for seeking approval of LIQ861 in the same indications should be made clear and could quickly follow. For example, United Therapeutics Corporation is actively studying Tyvaso in a Phase 3 trial of a subpopulation of WHO Group III subjects with pre-capillary PH with interstitial lung disease, including combined pulmonary fibrosis and emphysema, with an estimated prevalence of 27,500 patients globally in this subpopulation. By 2025, the diagnosed prevalence of all WHO Group III sub-types is expected to grow to over 250,000 patients in the United States, 5EU and Japan. WHO Group IV includes patients diagnosed with chronic thromboembolic pulmonary hypertension, or CTEPH. While considered underdiagnosed and undertreated, the current estimates for diagnosed prevalence of CTEPH in 2015 are between 2,000 and 6,500 patients in the United States and more than 10,000 patients in the 5EU and Japan.

Competition in PAH

If approved, LIQ861 would be one of several prostacyclin based products that can be used to manage a patient's disease. Initially, it would be positioned between the use of oral options and the continuous infusion of prostacyclin analogs.

In the inhaled category, the primary competitor for LIQ861 would be Tyvaso, the nebulized inhaled treprostinil. Tyvaso is administered by a proprietary nebulizer device four times per day. In addition to Tyvaso, LIQ861 would compete with inhaled iloprost, which is marketed as Ventavis in the United States by Actelion Pharmaceuticals Ltd, a subsidiary of Johnson & Johnson, and in Europe by Bayer Schering Pharma AG. Ventavis is administered by a proprietary nebulizer device six to nine times per day.

There would be additional competition from oral products in the prostacyclin pathway, including oral treprostinil, marketed as Orenitram by United Therapeutics Corporation, selexipag, marketed as Uptravi by Actelion Pharmaceuticals Ltd., and ralinepag, being studied in a Phase 3 clinical trial by Arena

Pharmaceuticals, Inc. These oral options may be used by a patient earlier in the disease cycle than LIQ861. However, we believe that LIQ861 could offer an attractive option for patients who are in earlier stages of the disease, but poorly managed on oral prostacyclin products.

Continuously infused prostacyclins include epoprostenol, marketed by multiple companies as generic and branded products, and treprostinil, marketed as Remodulin by United Therapeutics Corporation. These options are considered to offer the greatest efficacy and are usually prescribed to patients later in the disease. Infusion pumps present unique risks related to infusion site pain and the risk of blood stream infections, creating major limitations on the quality of life of patients.

We expect our other competitors could include potential new entrants such as MannKind Corporation, who has recently filed an IND and completed a Phase 1 trial for a treprostinil product that applies a proprietary technology to form microparticles in an inhaled dry powder. We also expect generic equivalents of Tyvaso may eventually enter the market following the expiry or invalidity of Tyvaso's patents, which are currently being challenged by a generics company.

LIQ865

Our second product candidate, LIQ865, which is designed using PRINT technology, is an injectable, sustained-release formulation of bupivacaine for the management of local post-operative pain for three to five days after a procedure, which we believe, if approved, would have the potential to provide significantly longer post-operative pain relief compared to currently marketed formulations of bupivacaine.

Background on Post-Operative Pain

The treatment of post-operative pain typically involves multi-modal therapy including the administration of local anesthetics after surgery. Although local anesthetics provide a well-established, safe and efficacious option for post-operative pain management, the duration of efficacy for conventional local anesthetics, including bupivacaine and lidocaine, is limited, with the pain relief typically lasting for eight hours or less. Because post-operative pain may continue to be severe for several days following the surgery, additional therapies are required. These therapies include morphine and other opioids administered through intravenous systems or orally, as well as various non-opioids, including acetaminophen and NSAIDs, like ibuprofen and ketorolac.

Current Therapies and Their Limitations

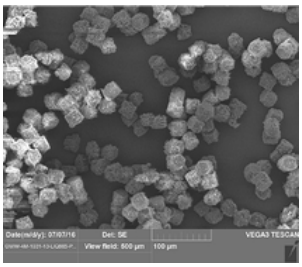
Opioids are the mainstay of post-operative pain management, but they are associated with a variety of unwanted and potentially serious or life-threatening side effects such as sedation, nausea, constipation, cognitive impairment, respiratory depression and death. In addition, opioids may be administered through patient-controlled analgesia systems, which may interfere with or delay patient ambulation and require significant hospital resources to implement and monitor. Furthermore, exposure to opioids for as little as four days can lead to increased risk of chronic opioid use. The risk of opioid abuse and diversion has led physicians, payors and the U.S. federal government to prioritize pain management strategies that minimize the use of opioids.

NSAIDs and other non-opioids for pain relief in the post-operative period are also associated with various undesirable side effects. Bleeding and gastrointestinal and renal complications may result from NSAID use. Acetaminophen can cause liver injury or failure with excessive dosing. As a result, we believe there is demand from healthcare providers and patients for post-operative pain relief therapies that can help prevent these issues.

Local anesthetics such as bupivacaine hydrochloride, or Marcaine, and lidocaine have been safely used for post-operative pain for decades, but have a duration of effect limited to less than eight hours. Approved in 2011, EXPAREL is a long-acting local anesthetic that involves an injection of bupivacaine in a multivesicular liposome carrier at the surgical site and is marketed in the United States by Pacira Pharmaceuticals, Inc. Physicians report that EXPAREL typically provides postsurgical analgesia for only 24 to 36 hours in practice, and market research we conducted suggests that physicians desire longer duration of effect to better manage local post-operative pain. In addition, because the interactions between the liposomal formulation of EXPAREL and co-administered local anesthetics can result in rapid release of bupivacaine, co-administration of other local anesthetics is inadvisable.

Potential Benefits of Our Approach

Using our PRINT technology, we have developed a particle formulation of bupivacaine that, if approved for marketing, will be used to manage local post-operative pain. We engineered the size and composition of LIQ865 particles to slowly release bupivacaine with the goal of providing patients with local pain relief for three to five days through a single administration, which we believe would provide significantly longer post-operative pain relief compared to currently marketed formulations of bupivacaine. The figure below depicts LIQ865, showing size consistency among particles.



LIQ865 is administered as a suspension and is easily injected at the surgical site. Because the molded drug particles are highly stable, we believe the potential for dose dumping, the unintended rapid drug release of bupivacaine from the carrier, would be minimized with LIQ865. In a non-clinical study, co-administration of LIQ865 with lidocaine did not cause early release of bupivacaine or otherwise negatively affect the pharmacokinetic profile of LIQ865. LIQ865 was engineered to be rapidly reconstituted and administered by injection. Unlike other sustained-release formulations, we do not expect LIQ865 will be constrained by a specific ratio of drug to diluting agent so its reconstitution volume can be adjusted based on the volume needs of a particular procedure. Furthermore, because particle-to-particle uniformity in size and composition is key to determining drug release rates, the particle-to-particle and batch-to-batch uniformity of our LIQ865 particles creates consistent release rates.

Results of Non-Clinical Studies

We commissioned an animal efficacy study of two formulations of LIQ865 in a rat perineural sciatic model, which was completed in January 2016. LIQ865 showed an extended pharmacokinetic profile and duration of nerve sensory block and the potential for extended post-operative pain management. Additionally, we evaluated the safety and tolerability of LIQ865 in a rat toxicology study in 2016. The results of this study supported advancing LIQ865 to human clinical trials.

Clinical Development

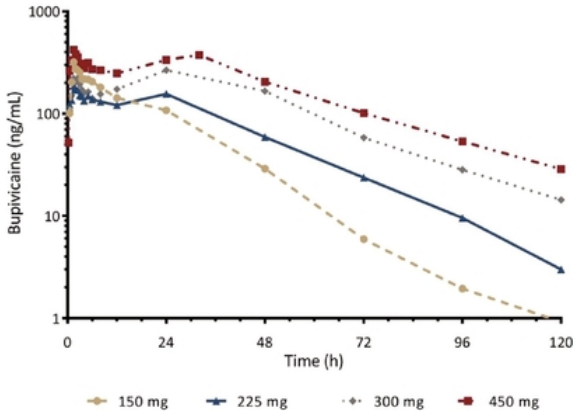
In March 2017, we completed our Phase 1a trial in Denmark to evaluate the safety and tolerability profile of two different PRINT formulations of bupivacaine: LIQ865A, consisting of particles combining bupivacaine and polylactic-glycolic acid, a polymer widely used in sustained-release drug products and surgical sutures; and LIQ865B, consisting of particles of bupivacaine alone, in a proprietary diluting agent. We observed a dose-response relationship in this trial, and all doses were well-tolerated. The results from the Phase 1a trial helped inform our selection of LIQ865A for further investigation in the United States. We filed an IND application in the United States in June 2017 and initiated a Phase 1b trial in the United States in September 2017 using an experimental pain model in healthy adults with quantitative sensory testing. We completed the U.S. Phase 1b trial in April 2018. We expect to initiate Phase 2-enabling toxicology studies in the second half of 2018 which are expected to be followed by an additional Phase 2-enabling toxicology study in 2019, subject to the availability of sufficient funding. In the United States, we plan to rely in part on the 505(b)(2) regulatory pathway for our NDA submission to the FDA for LIQ865, which would allow us to rely on the FDA's prior determinations of safety and efficacy for other products containing bupivacaine, such as Marcaine and EXPAREL.

Results of Phase 1 Trials

Our Phase 1a trial was a randomized, double-blind, controlled, single ascending dose, safety, pharmacokinetic and pharmacodynamic trial of LIQ865A and LIQ865B in 28 healthy male volunteers at a single site in Copenhagen, Denmark. The study design included dosing multiple cohorts, or groups, each receiving increasing bupivacaine doses as either LIQ865A or LIQ865B: 150 mg, 225 mg, 300 mg, 450 mg or 600 mg. The LIQ865 formulation was injected into the upper calf in one leg, and the other leg received the diluting agent without LIQ865 particles. The primary objective of this Phase 1 clinical trial was to evaluate the safety and tolerability profile of the two formulations of LIQ865. We also assessed bupivacaine pharmacokinetic and pharmacodynamic responses.

Based on the results of the Phase 1a trial, we selected the LIQ865A formulation for further development, and all of our references to LIQ865 are to this formulation. Results for 15 volunteers who received LIQ865A in this Phase 1 trial are shown below. The graph shows the mean plasma concentration of bupivacaine over 120 hours comparing the 150 mg, 225 mg, 300 mg and 450 mg dose cohorts of LIQ865A formulation, expressed on a logarithmic, or log, scale.

LIQ865A Log Linear Mean Concentration Over Time



A dose-response relationship was observed, with the plasma levels increasing as the dosage level of LIQ865 increased. Doses of LIQ865 up to 600 mg of bupivacaine were well-tolerated in the trial. All adverse events were mild to moderate in severity, and most adverse events were limited locally at the site of injection, with most related to sensory block of underlying sensory branches of the saphenous nerve in the leg.

At the 450 mg dose of LIQ865, all subjects had maximum concentration values below 800 ng/ml, which is well below the reported thresholds for neurotoxicity and cardiac toxicity of 2000 and 4000 ng/mL, respectively. The pharmacokinetic and pharmacodynamic profile for this dose suggested a sustained duration of effect, with nearly all subjects receiving this dose reporting at least three days of sensory blunting in response to quantitative sensory testing. LIQ865 also showed rapid onset of action at the one-hour time point in all subjects, even at the lowest dose of 150 mg. Additionally, we observed a sensory block of distal sensory branches of the saphenous nerve below the knee in eight of nine subjects who received 450 mg doses of LIQ865. This sensory block lasted at least three days, which we believe further supports the duration profile of LIQ865.

In March 2017, we met with the FDA at a pre-IND meeting and verified that the current Chemical Manufacturing and Control, or CMC, and preclinical package were "phase-appropriate" and sufficient to support our initial U.S. Phase 1 trial.

Following our submission of the IND for LIQ865, we initiated our U.S. Phase 1b clinical trial in September 2017, which was completed in April 2018. This trial used an experimental pain model in healthy male and female subjects with quantitative sensory testing after an injection of LIQ865 at doses of 150 mg, 300 mg and 450 mg. The experimental pain model was designed to simulate post-operative pain for up to five days through a combination of localized ultraviolet B burn and mini-incision. Additionally, the trial included a cross-over design to compare LIQ865 to EXPAREL. We observed that LIQ865 was well-tolerated across the dose ranges. All adverse events were mild to moderate, and no dose limiting toxicities were noted. The pharmacokinetic profiles were similar to what was seen in the Phase 1a trial. Pharmacodynamic effects were highly variable and inconclusive, which we associated with the experimental design of the pain model used in the Phase 1b trial.

Plans for Phase 2 Development

At our pre-IND meeting in March 2017, the FDA requested additional toxicology studies prior to the initiation of Phase 2 trials and we expect to initiate these Phase 2-enabling toxicology studies in the second half of 2018 which are expected to be followed by an additional Phase 2-enabling toxicology study in 2019, subject to the availability of sufficient funding. Upon the completion of all such Phase 2-enabling toxicology studies, if the FDA finds these studies sufficient to support proceeding with our clinical development plan, upon successful completion, we plan to initiate Phase 2 trials subject to the availability of sufficient funding, or a partner in the event we elect to license LIQ865 to a third party. We will seek to identify, in our Phase 2 trials, the minimum and optimal effective dose of LIQ865 to achieve three or more days of pain relief. We expect that this dose would be carried forward into Phase 3 development.

Competition

The primary competitor for LIQ865, if approved, would be liposomal bupivacaine, marketed as EXPAREL by Pacira Pharmaceuticals, Inc. We are aware of other long-acting local anesthetic products in clinical development from DURECT Corporation, Innocoll Holdings plc and Heron Therapeutics, Inc. as well as generic equivalents of EXPAREL, which may enter the market following the expiry of EXPAREL's patent in 2018. In addition to long-acting local anesthetics, there are a number of indirect competitors in development, including clinical-stage opioids and development-stage molecules that pursue the treatment of pain through alternative pathways.

Our PRINT Technology

Both LIQ861 and LIQ865 are being developed using our proprietary PRINT particle engineering technology, which allows us to engineer and manufacture highly uniform drug particles with independent control over the size, three-dimensional geometric shape and chemical composition of the particles. By controlling these physical and chemical parameters of particles, PRINT enables us to engineer desirable pharmacological benefits into product candidates, including prolonged duration of drug release, increased drug loading, more convenient routes of administration, the ability to create novel combination products, enhanced storage and stability and the potential to reduce adverse side effects. Controlling three-dimensional geometric shape and chemical composition of drug particles enables us to research, identify and pursue the improvement of existing therapies and creation of new therapies from existing drugs or new chemical entities, including small molecules and biologics.

Our ability to design and control these features of drug particles has the potential to provide significant benefits across the breadth of pharmaceutical applications. Product characteristics and features can be tuned depending on the need of a particular application, drug substance, delivery route and other such considerations. Based on our research to date, we anticipate the ability to: (i) enhance inhaled delivery through the highly uniform geometric shape of each drug particle; (ii) design desired drug release profiles

ranging from minutes post-delivery to days, weeks or months depending on need of a target therapy, by controlling the chemical composition of the drug particles and the surface area-to-volume ratio of the particles; (iii) enable combination products where one or more of the chemical constituents can destabilize or interact by encapsulating the desired constituent in a particle to shield it from another constituent during packaging and storage; and (iv) enhance the deposition and retention of topically delivered products by designing particles with a desired charge and/or Young's modulus.

Besides using our PRINT technology to develop our two product candidates, LIQ861 and LIQ865, we have exclusively licensed our PRINT technology to (i) GSK, a market leader in respiratory therapies, for applications broadly across inhaled delivery of their small molecule and biologic chemical entities, although we retained the ability to develop LIQ861; and (ii) Aerie Pharmaceuticals, Inc., which acquired most of the assets of Envisia Therapeutics, Inc. in 2017, for broad usage in the design and commercialization of small molecule and biologic ophthalmic therapies.

Our molding approach, which we branded as "PRINT" or Particle Replication In Non-wetting Templates, combines the precision of the semi-conductor industry with the high throughput of roll-to-roll manufacturing to make highly uniform micro- and nano-particles at a commercially viable scale. Our manufacturing equipment and materials used in the production of our drug particles are proprietary and protected by our patent portfolio and trade secret know-how. Our PRINT equipment is also modular, scalable and cost-effective.

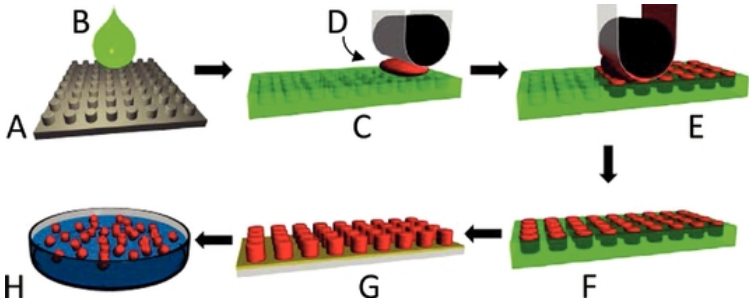
Our PRINT Process

We begin our particle design by procuring a custom designed master template etched with three-dimensional structures, or posts, that will become the eventual shape and size of our drug particles. These three-dimensional structures are then replicated in negative form, through our proprietary processing into flexible rolls of polymeric PRINT molds. Our PRINT molds consist of thousands of linear feet of thin flexible molds up to twenty-four inches wide. We then design and formulate our desired drug particle composition and apply that to our PRINT molds in our high-throughput roll-to-roll processing equipment, with each particle mimicking the shape of the mold cavity from which it was molded, thus taking the shape of the original master template structures.

The general components and steps of our PRINT molding are as follows:

- Etch a master template with the three-dimensional geometric structures of the desired particle size and shape (step A in the diagram below);
- Apply our proprietary polymeric mold material over the master template (step B) and cure the polymeric material to form our PRINT molds with discrete molding cavities that replicate the structures of the master template (step C);
- Design the chemical composition of the drug particle of interest (step D);
- Apply the drug particle composition to the cavities in the mold to fill the cavities (step E);
- Form the drug particles in the cavities of the mold that mimic the size and shape of the mold cavities (step F);
- Remove the drug particles from the mold cavities on a harvesting film (step G); and
- Remove the particles from the harvesting film for further functionalization, purification or packaging to be included in the final drug particle product (step H).

The diagram below shows the general steps involved in producing drug particles using our PRINT technology:



We have translated the PRINT process into a continuous, roll-to-roll manufacturing process that we believe is compliant with cGMP and scaled to support clinical and commercial production, when required. One of our current manufacturing lines is shown below:

Manufacturing and Supply

Our facilities occupy approximately 41,000 square feet and are located in Morrisville, North Carolina. Within these premises, there are office space, research and development laboratories and equipment, analytical development and quality control laboratories, research, development and mold production facilities, research and development particle fabrication equipment, including two operational PRINT particle fabrication lines, both of which we believe are cGMP-compliant, as well as appropriate staging, storage and stability facilities. These two operational PRINT particle fabrication lines are located within class ISO7 clean rooms that operate under applicable ISO and cGMP air quality and environmental requirements.

We currently produce in this facility the product candidates for our and our collaborators' preclinical studies and clinical trials. Our current operational PRINT particle fabrication lines are scaled and capable of producing the necessary materials to support our ongoing operations and planned studies and clinical trials and, we believe, ultimately commercial scale manufacturing. The production capacity for each PRINT particle fabrication line within our production facility varies depending on the drug particle that is being produced.

We have expanded our production facility by installing an additional PRINT particle fabrication line, which was completed in March 2018 and is intended to further increase our production capacity and capability in anticipation of the commercial production of LIQ861 and LIQ865, if and when we receive marketing approval for them. The capital expenditures for leasehold improvements in our facility related to this additional fabrication line will be financed through reimbursement allowances provided by the landlord.

If and when we receive marketing approval for our product candidates, we may, from time to time, rely on third-party CMOs to produce, package and distribute some or all of our approved drug products on a commercial scale.

We also depend on third-party suppliers for clinical supplies, including active pharmaceutical ingredients which are used in our product candidates. For example, we currently rely on a sole supplier, LGM Pharma, for treprostinil, the active pharmaceutical ingredient of LIQ861, and we currently rely on a sole supplier, Plastiape S.p.A., for RS00 Model 8 DPI, the DPI used to administer LIQ861.

Our Collaboration and Licensing Agreements

In addition to advancing our own product candidates, we have collaborated with leading pharmaceutical companies to develop their own product candidates across a wide range of therapeutic areas, molecule types and routes of administration, leveraging our PRINT technology. These collaborations are intended to help advance new PRINT capabilities and build upon our competitive advantage in the pharmaceutical industry, while adding to our intellectual property portfolio.

GlaxoSmithKline

We have actively collaborated with GSK on the use of our PRINT technology in respiratory disease. In June 2012, we entered into an Inhaled Collaboration and Option Agreement, or the GSK ICO Agreement, with GSK to collaborate on research regarding the application of our PRINT technology to specified inhaled therapies. Pursuant to the GSK ICO Agreement, we granted GSK exclusive options and licenses to further develop and commercialize such inhaled therapies using our PRINT technology. In partial consideration of the rights granted to GSK under the GSK ICO Agreement, we received a one-time up-front payment of $4.0 million. We also entered into a stock purchase agreement with GSK pursuant to which GSK purchased 4,765,248 shares of our Series C-1 convertible preferred stock for an aggregate of $3.8 million. In September 2015, GSK exercised its option to obtain an exclusive, worldwide license to certain of our know-how and patents relating to our PRINT technology, for the purpose of, among others, preclinical studies of inhaled therapeutics developed, manufactured or otherwise produced using our PRINT technology. In connection with the grant of this license, we received a one-time option exercise fee of $15.0 million. Under the terms of the GSK ICO Agreement, we are also entitled to continued research and development funding, certain milestone payments aggregating up to $158 million upon the achievement of specified milestone events, as well as tiered royalties on the worldwide sales of the licensed products at percentages in the mid-single digits. In February 2016, we received a $3.0 million payment from GSK upon the achievement of a clinical development milestone.

GSK has the right to terminate the GSK ICO Agreement in its entirety or on a product-by-product basis upon a specified period of prior written notice. Upon termination of the GSK ICO Agreement, each party will continue to have the right to practice and/or license its interest in any know-how developed during the collaboration without seeking the consent of, or accounting to, the other party.

As of June 15, 2018, GSK is conducting a Phase 1 trial of an inhaled chronic obstructive pulmonary disease, or COPD, candidate that is formulated as an inhaled, dry powder using the PRINT technology. Through this collaboration, we have worked together with GSK to advance inhaled therapeutic products into clinical studies. In June 2018, GSK notified us of its intention to review continuation of development of an inhaled antiviral for viral exacerbations in COPD, part of the GSK ICO Agreement, after completion of its related Phase 1 clinical trial, with such continuation subject to GSK management approval. We believe that GSK will likely not continue further development of the COPD program. GSK continues to express an interest in using PRINT technology for new inhaled programs, though no specific assets have been identified at this time. We and GSK are actively negotiating rights for us to develop and commercialize additional inhaled programs.

The University of North Carolina at Chapel Hill

In December 2008, we entered into the Amended and Restated License Agreement with UNC for the use of certain patent rights and technology relating to initial innovations of our PRINT technology, or the UNC License. Under the terms of the UNC License, we have an exclusive license to such patent rights and technology for our drug products. The UNC License grants us the right to grant sublicenses to the technology as well as control the litigation of any infringement claim instituted by or against us in respect of the licensed patent rights. We are also responsible for the costs of all expenses associated with the prosecution and maintenance of the patents and patent applications. Such filings and prosecution will be carried out by UNC and in UNC's name but under our control.

Under the UNC License, we are required to pay UNC royalties equal to a low single digit percentage of all net sales of our drug products whose manufacture, use or sale includes any use of the technology or patent rights covered by the UNC License, as well as tiered royalty percentages ranging in the low single digits of sales by our sublicensees for any product covered by rights under a sublicense agreement granted pursuant to the UNC License. Under the UNC License, we are also required to pay UNC 20% of all fees other than royalties that we collect and are attributable to UNC sublicensed intellectual property. As consideration for the UNC License, we paid UNC a license issue fee in the form of 196,469 shares of our Class B non-voting common stock in 2004. During the term of the UNC License, we have also paid approximately $2.9 million in the aggregate to UNC pursuant to a Supported Research Agreement, or the SRA. In connection therewith, we may exclusively license resulting inventions under the SRA for a $5,000 up-front license fee per invention. We have also paid aggregate consideration of $5.7 million in sublicense fees to UNC pursuant to the UNC License, for our sublicenses of our PRINT technology to GSK and G&W Labs, as described above. We also reimburse UNC for its costs of procuring and maintaining the patents we license from UNC. Such reimbursements amounted to $180,943 for the year ended December 31, 2016. Effective November 2017, we have satisfied all substantive milestones associated with our UNC License other than semi-annual and annual reporting-based milestones that continue through the term of the UNC License. The UNC License expires (i) on the expiration of the last to expire patent included in the patent rights or (ii) if no patents mature from such patent rights, in December 2028.

We have the right to terminate the UNC License upon a specified period of prior written notice. UNC may terminate the UNC License in certain circumstances, including if we fail to pay royalty or other payments on time or if we fail to sublicense in accordance with the terms of the UNC License. Upon termination of the UNC License, we must pay any royalty obligations due upon termination.

Intellectual Property

The proprietary nature and protection of our product candidates, their methods of use and our platform technology that enables our product candidates are an important part of our business strategy of rapidly developing and commercializing new medicines that address areas of significant unmet medical needs.

Our policy is to seek patent protection of our proprietary product candidates and technology by filing U.S., international and certain foreign patent applications covering certain of our proprietary technology, inventions, improvements and product candidates that are important to the growth and protection of our

business. We also rely on trade secrets to protect aspects of our business that are not amenable to patent protection or where we do not consider patent protection to be adequate or applicable.

Our success depends, in part, on our ability to obtain and maintain patent and other protection for our product candidates, enabling technology, inventions and know-how and our ability to defend and enforce these patents, preserve the proprietary nature of our trade secrets and operate our business without infringing valid and enforceable patent and other proprietary rights of third parties. We pursue both composition-of-matter patents and method-of-use patents for our product candidates. We are also pursuing patents covering our proprietary PRINT micro- and nano-particle fabrication technology.

The term of individual patents depends upon the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is generally 20 years from the earliest filing date of a non-provisional patent application to which the patent claims priority in the applicable country. In the United States, a patent's term may, in certain cases, be lengthened by patent term adjustment, or PTA, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office, or the USPTO, in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over a commonly owned patent or a patent naming a common inventor and having an earlier expiration date. The Patent Term Restoration Act of 1984, as amended, or the Hatch-Waxman Act, permits a patent term extension, or PTE, of up to five years beyond the expiration date of a U.S. patent as partial compensation for the length of time the drug is under regulatory review while the patent is in force. A PTE cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, and only one patent applicable to each regulatory review period may be extended. Further, only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended and the extension only applies to the approved drug, method for using it or method for manufacturing it for which the extension was obtained. Similar provisions are available in Europe and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug.

We are the owner or exclusive licensee of patents and applications relating to our proprietary technology platform and our product candidates, and are pursuing additional patent protection for these and for our other product candidates and technology developments.

We have a total of 130 patents and pending patent applications in our patent portfolio. As of June 15, 2018, we were the sole owner of 14 patents in the United States and 22 patents in foreign jurisdictions, as well as approximately 16 additional pending patent applications, including provisional patent applications, in the United States, Europe, Japan and other jurisdictions. In addition to the patents and patent applications owned solely by us, our patent portfolio also includes 52 patents and 26 patent applications licensed from third parties. As of June 15, 2018, we had an exclusive, worldwide license from UNC to 17 U.S. patents and 34 foreign patents, as well as 15 additional patent applications in the United States or selected foreign jurisdictions. Eight of the patents and two of the patent applications in the portfolio licensed from UNC are jointly owned by us.

With regard to our LIQ861 product candidate, as of June 15, 2018 our owned or in-licensed patents and patent applications that are directed to aspects of the PRINT technology utilized in LIQ861 include:

- U.S. Patent No. 8,263,129, which includes claims directed to methods of forming substantially uniform particles and is expected to expire on January 14, 2029, including 1486 days of PTA and assuming payment of all maintenance fees;
- U.S. Patent No. 8,420,124, which includes claims directed to a plurality of monodisperse particles and is expected to expire on August 19, 2028, including 1338 days of PTA and assuming payment of all maintenance fees;
- U.S. Patent No. 9,877,920, which includes claims directed to a plurality of particles and is expected to expire on December 20, 2024, assuming payment of all maintenance fees;

- U.S. Patent No. 8,439,666, which includes claims directed to laminate molds and is expected to expire on December 4, 2026, assuming payment of all maintenance fees;
- U.S. Patent No. 8,662,878, which includes claims directed to molds and mold systems and is expected to expire on December 4, 2026, assuming payment of all maintenance fees;
- U.S. Patent Nos. 8,945,441 and 9,662,809, which include claims directed to methods of making laminate molds and are each expected to expire on December 4, 2026, assuming payment of all maintenance fees;
- U.S. Patent No. 7,976,759, which includes claims directed to methods of forming nanoparticles and is expected to expire on October 13, 2028, assuming payment of all maintenance fees;
- U.S. Patent No. 9,545,737, which includes claims directed to methods of forming pharmaceutical particles and is expected to expire on April 22, 2029, including 191 days of PTA and assuming payment of all maintenance fees;
- U.S. Patent No. 8,444,907, which includes claims directed to methods for fabricating a substantially seamless pattern and is expected to expire on June 28, 2031, including 572 days of PTA and assuming payment of all maintenance fees; and
- U.S. Patent No. 9,744,715, which includes claims directed to methods for fabricating a substantially seamless pattern and is expected to expire on December 3, 2029, assuming payment of all maintenance fees.

As of June 15, 2018, we were sole owner of one pending international patent application, PCT/US17/31301, specifically directed to our LIQ861 product candidate. PCT/US17/31301 includes claims directed to dry powder inhalation compositions, methods of using such compositions treating a patient with PAH and methods of making such compositions. Any patents that may issue from PCT/US17/31301 are expected to expire on May 5, 2037, absent any terminal disclaimers, patent term adjustments or extensions and assuming payment of all maintenance fees.

With regard to our LIQ865 product candidate, as of June 15, 2018, our owned or in-licensed patents and patent applications that cover aspects of the PRINT technology utilized in LIQ865 include:

- U.S. Patent No. 8,263,129, which includes claims directed to methods of forming substantially uniform particles and is expected to expire on January 14, 2029, including 1,486 days of PTA and assuming payment of all maintenance fees;
- U.S. Patent No. 8,420,124, which includes claims directed to a plurality of monodisperse particles and is expected to expire on August 19, 2028, including 1,338 days of PTA and assuming payment of all maintenance fees;
- U.S. Patent No. 9,877,920, which includes claims directed to a plurality of particles and is expected to expire on December 20, 2024, assuming payment of all maintenance fees;
- U.S. Patent No. 8,662,878, which includes claims directed to molds and mold systems and is expected to expire on December 4, 2026, assuming payment of all maintenance fees;
- U.S. Patent Nos. 8,945,441 and 9,662,809, which include claims directed to methods of making laminate molds and are each expected to expire on December 4, 2026, assuming payment of all maintenance fees;
- U.S. Patent No. 7,976,759, which includes claims directed to methods of forming nanoparticles and is expected to expire on October 13, 2028, assuming payment of all maintenance fees;
- U.S. Patent No. 9,545,737, which includes claims directed to methods of forming pharmaceutical particles and is expected to expire on April 22, 2029, including 191 days of PTA and assuming payment of all maintenance fees;

- U.S. Patent No. 8,444,907, which includes claims directed to methods for fabricating a substantially seamless pattern and is expected to expire on June 28, 2031, including 572 days of PTA and assuming payment of all maintenance fees; and

- U.S. Patent No. 9,744,715, which includes claims directed to methods for fabricating a substantially seamless pattern and is expected to expire on December 3, 2029, assuming payment of all maintenance fees.

As of June 15, 2018, we were sole owner of one pending international patent application, PCT/US17/31397, specifically directed to our LIQ865 product candidate. PCT/US17/31397 includes claims directed to particulate compositions comprising an amino amide anesthetic and Poly(lactide-co-glycolide) polymer, formulations comprising such compositions, methods of using such compositions for inducing extended analgesia and methods of forming such compositions. Any patents that may issue PCT/US17/31397 are expected to expire on May 5, 2037, absent any patent term adjustments or extensions and assuming payment of all maintenance fees.

Sales and Marketing

We have retained worldwide commercial rights for our internal product candidates. If our product candidates receive marketing approval, we plan to commercialize them in the United States by building and utilizing our own commercial infrastructure. Outside of the United States, we intend to pursue the regulatory approval of our product candidates in collaboration with others, while leveraging the regional expertise of a commercialization collaborator. Considering our stage of development, we have not yet established a commercial organization or distribution capabilities.

With regard to our lead product candidate, LIQ861, we intend to focus our commercial efforts initially on the U.S. market, which we believe represents the largest market opportunity. In addition, we plan to establish collaborations with established pharmaceutical companies to commercialize our products in foreign markets. Within the United States, we believe that we can effectively commercialize LIQ861, if approved, with an initial specialty sales force of up to 75 representatives. We intend to initially pursue a highly concentrated target market of PAH centers of excellence and frequent prescribers of PAH therapies. Our physician call points within these sites of care will include cardiologists, pulmonologists and their supporting staff. We expect to supplement our sales force with representatives in the medical science, nursing and reimbursement fields to support the proper training and utilization of LIQ861. As part of our commercialization strategy, we plan to educate physician specialists, healthcare practitioners, patients and caregivers of the benefits of LIQ861 and its proper use. We plan to work with national associations, such as the Pulmonary Hypertension Association, and patient advocacy groups to update treatment guidelines to include a new, convenient product with a wide range of dosing.

Competition

The pharmaceutical industry is intensely competitive, subject to rapid and significant technological change and places emphasis on the value of proprietary products. While we believe that our technologies and experience provide us with a competitive advantage, our competitors include organizations such as major multinational pharmaceutical companies, established biotechnology companies, biopharmaceutical companies and generic drug companies. Many of our competitors have greater financial and other resources than we have, such as more commercial resources, larger research and development staffs and more extensive marketing and manufacturing organizations. As a result, these companies may obtain marketing approval more rapidly than we are able and may be more effective in selling and marketing their products. Smaller or early stage companies may also prove to be significant competitors, particularly through collaboration arrangements with large, established companies.

Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. Our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, technologies and drug products that are more effective or less

costly than products that we are currently selling through collaborators or developing or that we may develop, which could render our products obsolete and non-competitive. We expect any products that we develop and commercialize to compete on the basis of, among other things, efficacy, safety, convenience of administration and delivery, price and the availability of reimbursement from government and other third-party payors. We also expect to face competition in our efforts in recruiting and retaining qualified personnel and establishing clinical trial sites, patient enrollment in clinical trials and in identifying appropriate collaborators to help commercialize any approved products in our target commercial markets.

Government Regulation

Government Regulation and Product Approval

Government authorities in the United States at the federal, state and local level and in other countries, extensively regulate, among other things, the research, development, testing, manufacture, (including manufacturing changes), quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, marketing, export and import of products such as those we are developing. The processes for obtaining regulatory approvals in the United States and in foreign countries, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

U.S. Drug Development Process

In the United States, the FDA regulates drugs under the United States Federal Food, Drug, and Cosmetic Act, or the FDCA, and the FDA's implementing regulations.

Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, untitled or warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- § completion of preclinical laboratory tests, animal studies and formulation studies according to Good Laboratory Practices regulations;
- § submission to the FDA of an IND, which must become effective before human clinical studies may begin;
- § approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;
- § performance of adequate and well-controlled human clinical studies according to Good Clinical Practice, or GCP, regulations, to establish the safety and efficacy of the proposed drug for its intended use;
- § preparation and submission to the FDA of an NDA, containing the results of product development, preclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the drug product, proposed labeling and other relevant information, to request approval to market the drug product;
- § satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug product, or components thereof, are produced to assess compliance with cGMP to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity;
- § satisfactory completion of FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of clinical data;
- § FDA review and approval of the NDA;
- § payment of fees, including annual program fees for each drug product on the market; and

- ongoing compliance with any post-approval requirements, including risk evaluation and mitigation strategy, or REMS, and post-approval studies required by the FDA.

The testing and approval process requires substantial time, effort and financial resources, and we cannot be certain that any approvals for our product candidates will be granted on a timely basis, if at all.

Once a pharmaceutical product candidate is identified for development, it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity, formulation and stability, as well as animal studies. When a sponsor wants to proceed to test the product candidate in humans, it must submit an IND in order to conduct clinical trials.

An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, to the FDA as part of the IND. The sponsor must also include a protocol detailing, among other things, the objectives of the initial clinical study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated if the initial clinical study lends itself to an efficacy evaluation. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions related to a proposed clinical study and places the study on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical study can begin. Clinical holds also may be imposed by the FDA at any time before or during clinical studies due to safety concerns or non-compliance, and may be imposed on all product candidates within a certain pharmaceutical class. The FDA also can impose partial clinical holds, for example, prohibiting the initiation of clinical studies of a certain duration or for a certain dose.

All clinical studies must be conducted under the supervision of one or more qualified investigators in accordance with GCP regulations. These regulations include the requirement that all research subjects provide informed consent in writing before their participation in any clinical study. Further, an IRB must review and approve the plan for any clinical study before it commences at any institution, and the IRB must conduct continuing review and reapprove the study at least annually. An IRB considers, among other things, whether the risks to individuals participating in the clinical study are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the information regarding the clinical study and the consent form that must be provided to each clinical study subject or his or her legal representative and must monitor the clinical study until completed.

Each new clinical protocol and any amendments to the protocol must be submitted for FDA review, and to the IRBs for approval. Protocols detail, among other things, the objectives of the clinical study, dosing procedures, subject selection and exclusion criteria and the parameters to be used to monitor subject safety.

Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their ClinicalTrials.gov website.

Human clinical studies are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1.* The product is initially introduced into a small number of healthy human subjects or patients and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion and, if possible, to gain early evidence on effectiveness. In the case of some products for severe or life-threatening diseases, especially when the product is suspected or known to be unavoidably toxic, the initial human testing may be conducted in patients.

- *Phase 2.* Involves clinical studies in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage and schedule.

- *Phase 3.* Clinical studies are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These clinical studies

are intended to establish the overall risk/benefit relationship of the product and provide an adequate basis for product labeling.

Progress reports detailing the results of the clinical studies must be submitted at least annually to the FDA and safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events. Phase 1, Phase 2 and Phase 3 testing may not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend or terminate a clinical study at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical study at its institution if the clinical study is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

Concurrent with clinical studies, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the product and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

Assuming successful completion of the required clinical testing, the results of product development, preclinical studies and clinical studies, along with descriptions of the manufacturing process, analytical tests conducted on the drug, proposed labeling and other relevant information, are submitted to the FDA as part of an NDA for a new drug, requesting approval to market the product.

The submission of an NDA is subject to the payment of a substantial application user fee although a waiver of such fee may be obtained under certain limited circumstances. For example, the agency will waive the application fee for the first human drug application that a small business or its affiliate submits for review. The sponsor of an approved NDA is also subject to annual program user fees.

In addition, under the Pediatric Research Equity Act of 2003, or PREA, an NDA application (or a supplement to an application) for a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration must contain data that are adequate to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective, unless the applicant has obtained a waiver or deferral.

A sponsor who is planning to submit a marketing application for a drug product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration must submit an initial Pediatric Study Plan, or PSP, within 60 days of an End-of-Phase 2 meeting or as may be agreed between the sponsor and the FDA. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of data or full or partial waivers. The FDA and the sponsor must reach agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from preclinical studies, early phase clinical studies or other clinical development program.

The FDA also may require submission of a REMS to mitigate any identified or suspected serious risks. The REMS could include medication guides, physician communication plans, assessment plans and elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools.

The FDA reviews all NDAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing. The FDA may request additional information rather than accept an application for filing. In this event, the application must be re-submitted with the additional information. The re-submitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review.

The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use and whether its manufacturing is cGMP-compliant.

The FDA may approve an NDA only if the methods used in, and the facilities and controls used for, the manufacture processing, packing and testing of the product are adequate to ensure and preserve its identity, strength, quality and purity.

Before approving an NDA, the FDA often will inspect the facility or facilities where the product is or will be manufactured.

The FDA may refer the NDA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved and under what conditions. An advisory committee is a panel of experts, including clinicians and other scientific experts, who provide advice and recommendations when requested by the FDA. The FDA is not bound by the recommendation of an advisory committee, but it considers such recommendations when making decisions.

Additionally, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure clinical data supporting the submission were developed in compliance with GCP.

The approval process is lengthy and difficult and the FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied, or may require additional clinical data or other data and information. Even if such data and information are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical studies are not always conclusive and the FDA may interpret data differently than an applicant interprets the same data.

After the FDA's evaluation of an application, the FDA may issue an approval letter or a complete response letter to indicate that the review cycle is complete and that the application is not ready for approval. A complete response letter generally contains a statement of specific conditions that must be met to secure final approval of the application and may require additional clinical or preclinical testing for the FDA to reconsider the application. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical studies. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the application, addressing all of the deficiencies identified in the letter, or withdraw the application or request an opportunity for a hearing.

Even with submission of additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. In addition, the FDA may require post-approval studies, including Phase 4

clinical studies, to further assess safety and effectiveness after approval and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

New Drug Applications

Most drug products obtain FDA marketing approval pursuant to an NDA (described above) for innovator products, or an abbreviated new drug application, or ANDA, for generic products. Relevant to ANDAs, the Hatch-Waxman Act amendments to the FDCA established a statutory procedure for submission and FDA review and approval of ANDAs for generic versions of branded drugs previously approved by the FDA (such previously approved drugs are also referred to as listed drugs). Because the safety and efficacy of listed drugs have already been established by the brand company (sometimes referred to as the innovator), the FDA does not require a demonstration of safety and efficacy of generic products. However, a generic manufacturer is typically required to conduct bioequivalence studies of its test product against the listed drug. The bioequivalence studies for orally administered, systemically available drug products assess the rate and extent to which the active pharmaceutical ingredient is absorbed into the bloodstream from the drug product and becomes available at the site of action. Bioequivalence is established when there is an absence of a significant difference in the rate and extent for absorption of the generic product and the listed drug. For some drugs, including locally acting drugs such as topical anti-fungals, other means of demonstrating bioequivalence may be required by the FDA, especially where rate and/or extent of absorption are difficult or impossible to measure. In addition to the bioequivalence data, an ANDA must contain patent certifications and chemistry, manufacturing, labeling and stability data.

A third alternative is a special type of NDA, commonly referred to as a 505(b)(2) NDA, enables the applicant to rely, in part, on the FDA's findings of safety and efficacy of an existing product, or published literature, in support of its application. 505(b)(2) NDAs often provide an alternate path to FDA approval for new or improved formulations or new uses of previously approved products. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. The applicant may rely upon the FDA's findings with respect to certain preclinical or clinical studies conducted for an approved product. The FDA may also require companies to perform additional studies or measurements to support the change from the approved product. The FDA may then approve the new product candidate for all or some of the label indications for which the referenced product has been approved, as well as for any new indication sought by the 505(b)(2) applicant.

In seeking approval for a drug through an NDA, including a 505(b)(2) NDA, applicants are required to list with the FDA certain patents of the applicant or that are held by third parties whose claims cover the applicant's product. Upon approval of an NDA, each of the patents listed in the application for the drug is then published in the Orange Book. Any subsequent applicant who files an ANDA seeking approval of a generic equivalent version of a drug listed in the Orange Book or a 505(b)(2) NDA referencing a drug listed in the Orange Book must make one of the following certifications to the FDA concerning patents: (1) the patent information concerning the reference listed drug product has not been submitted to the FDA; (2) any such patent that was filed has expired; (3) the date on which such patent will expire; or (4) such patent is invalid or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. This last certification is known as a paragraph IV certification. A notice of the paragraph IV certification must be provided to each owner of the patent that is the subject of the certification and to the holder of the approved NDA to which the ANDA or 505(b)(2) application refers. The applicant may also elect to submit a "section viii" statement certifying that its proposed label does not contain (or carves out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent.

If the reference NDA holder or patent owners assert a patent challenge directed to one of the Orange Book listed patents within 45 days of the receipt of the paragraph IV certification notice, the FDA is prohibited from approving the application until the earlier of 30 months from the receipt of the paragraph IV certification expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the applicant. The ANDA or 505(b)(2) application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the branded reference drug has expired as described in further detail below. Thus approval of a 505(b)(2) NDA or ANDA can be stalled until all the listed patents claiming the referenced product have expired, until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, listed in the Orange Book for the referenced product has expired, and, in the case of a Paragraph IV certification and subsequent patent infringement suit, until the earlier of 30 months, settlement of the lawsuit or a decision in the infringement case that is favorable to the ANDA or 505(b)(2) applicant.

Combination Products

Medical products containing a combination of new drugs, biological products, or medical devices are regulated as "combination products" in the United States. A combination product generally is defined as a product comprised of components from two or more regulatory categories, such as drug/device, device/biologic or drug/biologic. The term combination product includes: (i) a product comprised of two or more regulated components (i.e., drug/device, biologic/device, drug/biologic or drug/device/biologic, that are physically, chemically or otherwise combined or mixed and produced as a single entity); (ii) two or more separate products packaged together in a single package or as a unit and comprised of drug and device products, device and biological products or biological and drug products; (iii) a drug, device or biological product packaged separately that according to its investigational plan or proposed labeling is intended for use only with an approved individually specified drug, device or biological product where both are required to achieve the intended use, indication or effect and where upon approval of the proposed product the labeling of the approved product would need to be changed, such as to reflect a change in intended use, dosage form, strength, route of administration, or significant change in dose; or (iv) any investigational drug, device or biological product packaged separately that according to its proposed labeling is for use only with another individually specified investigational drug, device, or biological product where both are required to achieve the intended use, indication or effect.

Each constituent part of a combination product is subject to the requirements established by the FDA for that type of constituent part, whether a new drug, biologic or device. In order to facilitate pre-market review of combination products, the FDA designates one of its centers to have primary jurisdiction for the pre-market review and regulation of the overall product based upon a determination by FDA of the primary mode of action of the combination product, and typically one application, such as for a drug/device combination product assigned to the FDA's Center for Drug Evaluation and Research, or CDER, an NDA, will be made.

A device with the primary purpose of delivering or aiding in the delivery of a drug and distributed containing a drug (i.e., a "prefilled delivery system") is typically evaluated by CDER using drug authorities and device authorities, as necessary.

A device with the primary purpose of delivering or aiding in the delivery of a drug and that is distributed without the drug (i.e., unfilled) is typically evaluated by the FDA's Center for Devices and Radiological Health and CDER, respectively, unless the intended use of the two products, through labeling, creates a combination product.

The FDA has indicated that dry powder inhalers, such as our lead product candidate, LIQ861, are drug/device combination products.

Post-Approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to extensive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping (including

certain electronic record and signature requirements), periodic reporting, product sampling and distribution, advertising and promotion and reporting of certain adverse experiences, deviations and other problems with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

The FDA strictly regulates labeling, advertising, promotion and other types of information on products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label. Further, manufacturers must continue to comply with cGMP requirements, which are extensive and require considerable time, resources and ongoing investment to ensure compliance. In addition, changes to the manufacturing process generally require prior FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

Manufacturers and certain other entities involved in the manufacturing and distribution of approved products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. The cGMP requirements apply to all stages of the manufacturing process, including the production, processing, sterilization, packaging, labeling, storage and shipment of the product. Manufacturers must establish validated systems to ensure that products meet specifications and regulatory standards, and test each product batch or lot prior to its release. Combination products are subject to FDA regulation to ensure the quality of both the constituent parts and the finished product.

Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

The FDA may impose a number of post-approval requirements as a condition of approval of an application. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization.

The FDA may withdraw a product approval if compliance with regulatory requirements is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, problems with manufacturing processes, or failure to comply with regulatory requirements, may result in restrictions on the product or even complete withdrawal of the product from the market.

Potential implications include required revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of

the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription drugs is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of the products and product samples at the federal level, and sets minimum standards for the registration and regulation of distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. In addition to new legislation, FDA regulations, guidance and policies are often revised or reinterpreted by the agency in ways that may significantly affect our business and our product candidates. It is impossible to predict whether further legislative or FDA regulation or policy changes will be enacted or implemented and what the impact of such changes, if any, may be.

Patent Term Restoration

Depending upon the timing, duration and specifics of FDA approval of the use of our product candidates, some of our U.S. patents may be eligible for limited PTE under the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years as compensation for patent term effectively lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA plus the time between the submission date of an NDA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension. Extensions are not granted as a matter of right and the extension must be applied for prior to expiration of the patent and within a sixty day period from the date the product is first approved for commercial marketing. The USPTO, in consultation with the FDA, reviews and approves the application for any PTE or restoration. In the future, we may apply for PTEs, defined as the length of the regulatory review of products covered by our granted patents, for some of our currently owned or licensed applications and patents to add patent life beyond their current expiration dates. Such extensions will depend on the length of the regulatory review; however, there can be no assurance that any such extension will be granted to us.

Marketing Exclusivity

Market exclusivity provisions under the FDCA can also delay the submission or the approval of certain applications. The specific scope varies, but fundamentally the FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an ANDA or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, for new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and does not prohibit the FDA from approving applications for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be

required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical studies necessary to demonstrate safety and effectiveness.

Pediatric exclusivity is another type of exclusivity in the United States. Pediatric exclusivity, if granted, provides an additional six months to the term of any existing regulatory exclusivity, including the non-patent exclusivity periods described above. This six-month exclusivity may be granted based on the voluntary completion of a pediatric clinical study in accordance with an FDA-issued "Written Request" for such a clinical study.

Pharmaceutical Coverage, Pricing and Reimbursement

In the United States, sales of any products for which we may receive regulatory approval for commercial sale will depend in part on the availability of coverage and reimbursement from third-party payors. Third-party payors include government authorities, managed care providers, private health insurers and other organizations.

Significant uncertainty exists as to the coverage and reimbursement status of any products for which we may obtain regulatory approval. Some of the additional requirements and restrictions on coverage and reimbursement levels imposed by third-party payors influence the purchase of healthcare services and products. Third-party payors may limit coverage to specific drugs on an approved list, or formulary, which might not include all of the FDA-approved drugs for a particular indication, or place drugs at certain formulary levels that result in lower reimbursement levels. Moreover, a payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Further, one payor's determination to provide coverage does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement may differ significantly from payor to payor as there is no uniform policy of coverage and reimbursement for drug products among third-party payors.

Reimbursement may also impact the demand for drug products that obtain marketing approval. If coverage for a drug product is obtained by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. Patients who are prescribed medications for the treatment of their conditions, and their prescribing physicians, generally rely on third-party payors to reimburse all or part of the costs associated with their prescription drugs. Prescribing physicians are unlikely to use or prescribe drug products unless coverage is provided and reimbursement is adequate to cover all or a significant portion of the cost of those drug products. If reimbursement is not available, or is available only to limited levels, a drug product which has obtained marketing approval may not be successfully commercialized.

Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. In order to obtain and maintain coverage and reimbursement for any product that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of any products, in addition to the costs required to obtain regulatory approvals. Our product candidates may not be considered medically necessary or cost-effective. If third-party payors do not consider a product to be cost-effective compared to other available therapies, they may not cover the product after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow a company to sell its products at a profit.

The U.S. government and state legislatures have shown significant interest in implementing cost containment programs to limit the growth of government-paid healthcare costs, including price controls, restrictions on reimbursement and coverage and requirements for substitution of generic products for branded prescription drugs. Adoption of government controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could exclude or limit our drugs and product candidates from coverage and limit payments for pharmaceuticals.

In addition, we expect that the increased emphasis on managed care and cost containment measures in the United States by third-party payors and government authorities to continue and will place pressure on pharmaceutical pricing and coverage. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Other Healthcare Laws and Compliance Requirements

Healthcare providers, physicians and third-party payors often play a primary role in the recommendation and prescription of any currently marketed products and product candidates for which we may obtain marketing approval. Our current and future arrangements with healthcare providers, physicians, third-party payors and customers, and our sales, marketing and educational activities, may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations (at the federal and state level) that may constrain our business or financial arrangements and relationships through which we market, sell and distribute our products for which we obtain marketing approval.

In addition, we may be subject to transparency laws and patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include the following:

- The federal Anti-Kickback Statute, which prohibits, among other things, persons and entities including pharmaceutical manufacturers from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order or recommendation of, an item or service reimbursable, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. This statute has been interpreted broadly to apply to, among other things, arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other hand. The term "remuneration" expressly includes kickbacks, bribes or rebates and also has been broadly interpreted to include anything of value, including, for example, gifts, discounts, waivers of payment, ownership interest and providing anything at less than its fair market value. There are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, however, the exceptions and safe harbors are drawn narrowly, and practices that do not fit squarely within an exception or safe harbor may be subject to scrutiny. The failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the federal Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Our practices may not meet all of the criteria for safe harbor protection from federal Anti-Kickback Statute liability in all cases. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

- The federal civil and criminal false claims laws and civil monetary penalty laws, including the False Claims Act, which prohibits individuals or entities from, among other things, knowingly presenting, or causing to be presented, claims for payment to, or approval by, the federal government that are false, fictitious or fraudulent or knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim to avoid, decrease or conceal an obligation to pay money to the federal government. As a result of a modification made by the Fraud Enforcement and Recovery Act of 2009, a claim includes "any request or demand" for money or property presented to the federal government. Although we do not submit claims directly to payors, manufacturers can be held liable under these laws if they are deemed to "cause" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers, promoting a

product off-label, marketing products of sub-standard quality, or, as noted above, paying a kickback that results in a claim for items or services. In addition, our activities relating to the reporting of wholesaler or estimated retail prices for our products, the reporting of prices used to calculate Medicaid rebate information and other information affecting federal, state and third-party reimbursement for our products, and the sale and marketing of our products, are subject to scrutiny under this law. For example, several pharmaceutical and other healthcare companies have faced enforcement actions under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. The False Claims Act also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the False Claims Act and to share in any monetary recovery. In addition, federal Anti-Kickback Statute violations and certain marketing practices, including off-label promotion, may also implicate the False Claims Act. Although the False Claims Act is a civil statute, conduct that results in a False Claims Act violation may also implicate various federal criminal statutes.

- The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations or promises, any money or property owned by, or under the control or custody of, any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device, a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation.

- HIPAA, as amended by as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, including the Final Omnibus Rule published on January 25, 2013, impose, among other things, obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information held by certain healthcare providers, health plans and healthcare clearinghouses, known as covered entities, and business associates. Among other things, HITECH made certain aspects of HIPAA's rules (notably the Security Rule) directly applicable to business associates — independent contractors or agents of covered entities that receive or obtain individually identifiable health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal court to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. The Department of Health and Human Services Office of Civil Rights, or the OCR, has increased its focus on compliance and continues to train state attorneys general for enforcement purposes. The OCR has recently increased both its efforts to audit HIPAA compliance and its level of enforcement, with one recent penalty exceeding $5 million.

- The federal physician payment transparency requirements, sometimes referred to as the "Physician Payments Sunshine Act," created under the U.S. Patient Protection and Affordable Care Act of 2010, as amended, or the ACA, and its implementing regulations, which requires applicable manufacturers of covered drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the State Children's Health Insurance Program (with certain exceptions) to annually report to the United States Department of Health and Human Services, or HHS, information related to certain payments or other transfers of value made or distributed to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the

physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members.

- According to the U.S. Federal Trade Commission, or the FTC, failing to take appropriate steps to keep consumers' personal information secure constitutes unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act, or the FTCA, 15 U.S.C § 45(a). The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities. Medical data is considered sensitive data that merits stronger safeguards. The FTC's guidance for appropriately securing consumers' personal information is similar to what is required by the HIPAA Security Rule.

- Analogous state laws and regulations, such as state anti-kickback and false claims laws, which may apply to items or services reimbursed by any third-party payor, including commercial insurers, some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report pricing and marketing information, including, among other things, information related to payments to physicians and other healthcare providers or marketing expenditures, state and local laws that require the registration of pharmaceutical sales representatives, and state laws governing the privacy and security of health information and the use of prescriber-identifiable data in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that certain business activities could be subject to challenge under one or more of such laws. The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Ensuring that business arrangements with third parties comply with applicable healthcare laws, as well as responding to possible investigations by government authorities, can be time- and resource-consuming and can divert management's attention from the business.

If our operations are found to be in violation of any of the health regulatory laws described above or any other laws that apply to us, we may be subject to penalties, including, but not limited to, criminal, civil and administrative penalties, damages, fines, disgorgement, individual imprisonment, possible exclusion from participation in government healthcare programs, injunctions, private qui tam actions brought by individual whistleblowers in the name of the government and the curtailment or restructuring of our operations, as well as additional reporting obligations and oversight if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws, any of which could adversely affect our ability to operate our business and our results of operations.

Healthcare Reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States. By way of example, in March 2010, the ACA as amended was enacted, which includes measures that have or will significantly

change the way healthcare is financed by both governmental and private insurers. Among the provisions of the ACA of greatest importance to the pharmaceutical industry are the following:

- The Medicaid Drug Rebate Program requires pharmaceutical manufacturers to enter into and have in effect a national rebate agreement with the Secretary of the Department of Health and Human Services as a condition of Medicare Part B and Medicaid coverage of the manufacturer's outpatient drugs furnished to Medicaid patients. Effective in 2010, the ACA made several changes to the Medicaid Drug Rebate Program, including increasing pharmaceutical manufacturers' rebate liability by raising the minimum basic Medicaid rebate on most branded prescription drugs from 15.1% of average manufacturer price, or AMP, to 23.1% of AMP, establishing new methodologies by which AMP is calculated and rebates owed by manufacturers under the Medicaid Drug Rebate Program are collected for drugs that are inhaled, infused, instilled, implanted or injected, adding a new rebate calculation for "line extensions" (i.e., new formulations, such as extended release formulations) of solid oral dosage forms of branded products, expanding the universe of Medicaid utilization subject to drug rebates to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations. and expanding the population potentially eligible for Medicaid drug benefits.

- In order for a pharmaceutical product to receive federal reimbursement under the Medicare Part B and Medicaid programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The required 340B discount on a given product is calculated based on the AMP and Medicaid rebate amounts reported by the manufacturer. Effective in 2010, the ACA expanded the types of entities eligible to receive discounted 340B pricing, although, under the current state of the law, with the exception of children's hospitals, these newly eligible entities will not be eligible to receive discounted 340B pricing on orphan drugs when used for the orphan indication. In addition, as 340B drug pricing is determined based on AMP and Medicaid rebate data, the revisions to the Medicaid rebate formula and AMP definition described above could cause the required 340B discount to increase. Recent proposed guidance from the U.S. Department of Health and Human Services Health Resources and Services Administration, if adopted in its current form, may affect manufacturers' rights and liabilities in conducting audits and resolving disputes under the 340B program.

- Expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals beginning in April 2010 and by adding new mandatory eligibility categories for certain individuals with income at or below 133.0% of the federal poverty level beginning in 2014, thereby potentially increasing both the volume of sales and manufacturers' Medicaid rebate liability.

- The ACA imposed a requirement on manufacturers of branded drugs to provide a 50% (and 70% commencing on January 1, 2019) discount off the negotiated price of branded drugs dispensed to Medicare Part D patients in the coverage gap (i.e., the donut hole) in order for Part D coverage to be available for the manufacturer's covered Part D drugs.

- The ACA imposed an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs with aggregate branded prescription drug sales over $5 million to certain government healthcare programs or pursuant to coverage under such programs, apportioned among these entities according to their market share in certain government healthcare programs, although this fee would not apply to sales of certain products approved exclusively for orphan indications.

- The ACA implemented the federal physician payment transparency requirements, sometimes referred to as the "Physician Payments Sunshine Act".

- The ACA established a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research. The research conducted by the Patient-Centered Outcomes Research Institute may affect the market for certain pharmaceutical products by influencing decisions relating to coverage and reimbursement rates.

- The ACA established the Center for Medicare and Medicaid Innovation, or Innovation Center, within Centers for Medicare & Medicaid Services, or CMS, to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending. The Innovation Center has been funded through 2019, and funding will be automatically renewed for each 10-year budget window thereafter.

- The ACA established a licensure framework for follow-on biologic products.

- The ACA expanded healthcare fraud and abuse laws in the United States, including the False Claims Act and the federal Anti-Kickback Statute, new government investigative powers and enhanced penalties for non-compliance.

- The ACA requires annual reporting of drug samples that manufacturers and distributors provide to physicians.

Some of the provisions of the ACA have yet to be implemented, and there have been judicial and Congressional challenges to certain aspects of the ACA, as well as recent efforts by the Trump administration to repeal or replace certain aspects of the ACA. Since January 2017, President Trump has signed two Executive Orders and other directives designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the ACA have been signed into law. The Tax Cuts and Jobs Act of 2017 includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate". Additionally, on January 22, 2018, President Trump signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the ACA, effective January 1, 2019, to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole".

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. For example, in August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2012 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013 and due to subsequent legislative amendments to the statute, including the BBA, will remain in effect through 2027 unless additional Congressional action is taken. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products.

Further, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. At the federal level, the Trump administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process

or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. Additionally, on May 11, 2018, President Trump laid out his administration's "Blueprint" to lower drug prices and reduce out of pocket costs of drugs, as well as additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. HHS has already started the process of soliciting feedback on some of these measures and, at the same, is immediately implementing others under its existing authority. Although most of these, and other, proposals will require authorization through additional legislation to become effective, the U.S. Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs, including by addressing the role of pharmacy benefit managers in the supply chain. At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

More recently, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017, or Right to Try Act, was signed into law. The law, among other things, provides a federal framework for patients to access certain investigational new drug products that have completed a Phase I clinical trial. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA approval under the FDA expanded access program. The Right to Try Act did not establish any new entitlement or positive right to any party or individual, nor did it create any new mandates, directives, or additional regulations requiring a manufacturer or sponsor of an eligible investigational new drug product to provide expanded access.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. Such reforms could have an adverse effect on anticipated revenues from our products and product candidates that we may successfully develop and for which we may obtain regulatory approval and may affect our overall financial condition and ability to develop product candidates.

Foreign Regulation of Drugs

In order to market any product outside of the United States, we will need to comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding development, approval, commercial sales and distribution of our products, and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of our products, if approved. Whether or not we obtain FDA approval for a product, we must obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies between countries and jurisdictions and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others.

Employees

As of June 15, 2018, we had 64 full-time employees, including six employees in management (including our executive officers), 26 employees in research and development, 16 employees in manufacturing and operations, four employees in regulatory and quality, one employee in commercial and 11 employees in general and administration. All of our full-time employees are employed in the United States.

Facilities

Our corporate headquarters are located in Morrisville, North Carolina, and consist of 36,834 square feet of space under a lease that expires on October 31, 2026 and includes an option to renew for an additional five years through October 31, 2031. The primary use of this location is general office, laboratory, research and development and light manufacturing. In addition, we also have an additional lease in Morrisville, North Carolina consisting of 4,402 square feet of space which lease expires on October 31, 2022 and includes an option to renew for an additional five years through October 31, 2027. The primary use of this location is general office space and research and development laboratories. We believe that our facilities are adequate for our current needs and for the foreseeable future; however, we will continue to seek additional space as needed to accommodate our growth.

Legal Proceedings

From time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors. There is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or other body pending or, to the knowledge of our executive officers, threatened against or affecting us, our common stock or any of our officers or directors in their capacities as such, in which an adverse decision could have a materially adverse effect on our financial condition or results of operations.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the name, age as of June 15, 2018 and position of each of our executive officers and directors. The following also includes certain information regarding our directors' and executive officers' individual experience, qualifications, attributes and skills and brief statements of those aspects of our directors' backgrounds that led us to conclude that they are qualified to serve as directors. Unless otherwise stated, the business address for all of our executive officers and members of our Board is c/o Liquidia Technologies, Inc., 419 Davis Drive, Suite 100, Morrisville, North Carolina 27560.

Name	Age	Position
Executive Officers		
Neal Fowler	56	Chief Executive Officer and Director
Kevin Gordon	55	President and Chief Financial Officer
Robert Lippe	53	Chief Operations Officer
Dr. Robert Roscigno	52	Senior Vice President, Product Development
Dr. Benjamin Maynor	43	Senior Vice President, Research and Development
Non-Employee Directors		
Dr. Seth Rudnick[2][3][4]	69	Chairman of the Board and Director
Dr. Stephen Bloch[1][3]	56	Director
Edward Mathers[3]	58	Director
Dr. Isaac Cheng[1]	43	Director
Dr. Ralph Snyderman[2][4]	78	Director
Arthur Kirsch[1]	66	Director
Jason Rushton	48	Director
Raman Singh[2]	47	Director
Key Employees		
Timothy Albury	50	Senior Vice President, Chief Accounting Officer
Jeri Thomas	56	Senior Vice President, Commercial
Jason Adair	46	Vice President, Business Development and Strategy

(1) Member of our Audit Committee.

(2) Member of our Nominating and Corporate Governance Committee effective upon formation of such committee prior to consummation of this offering.

(3) Member of our Compensation Committee.

(4) Member of our Research and Development Committee.

Executive Officers

Neal Fowler has been our Chief Executive Officer and a member of our Board since March 2008. Mr. Fowler also served as a director of Envisia Therapeutics Inc. from November 2013 until November 2017. From June 2006 to March 2008, Mr. Fowler served as president of Centocor, Inc., a subsidiary of Johnson & Johnson, which focused on the development and commercialization of industry-leading biomedicines used to treat chronic inflammatory diseases. From July 2004 to June 2006, Mr. Fowler was the president of Ortho-McNeil Neurologics, Inc. and from October 2001 to July 2004, the vice president of the central nervous system business of Ortho-McNeil-Janssen Pharmaceuticals, Inc. From June 1988 to October 2001,

Mr. Fowler held a variety of sales, marketing and business development roles at Eli Lilly and Company in the pharmaceutical and medical device divisions. Mr. Fowler is currently a director of Aralez Pharmaceuticals, Inc. (Nasdaq: ARLZ). Mr. Fowler graduated from UNC with a Bachelor of Science in Pharmacy and holds a Master of Business Administration from UNC. We believe Mr. Fowler is qualified to serve on our Board due to his extensive and broad range of experience in business and healthcare product development, including previous experience growing companies in the pharmaceutical industry.

Kevin Gordon has been our President and Chief Financial Officer since January 2018. From October 2015 until his retirement in October 2016, Mr. Gordon served as executive vice president and chief operating officer of Quintiles (now named IQVIA Holdings Inc.) (NYSE: IQV), today a global biopharmaceutical services provider. From July 2010 to December 2015, Mr. Gordon served as executive vice president and chief financial officer of Quintiles. Prior to joining Quintiles, Mr. Gordon spent 13 years with Teleflex Incorporated (NYSE: TFX), a health care company, most recently serving as executive vice president and chief financial officer from March 2007 to January 2010. Prior to serving at Teleflex, Mr. Gordon spent 12 years in senior finance positions with Package Machinery Company and KPMG. Mr. Gordon is currently a director and the audit committee chairman of Veracyte, Inc. (Nasdaq: VCYT). Mr. Gordon received his Bachelor of Science in Accounting from the University of Connecticut.

Robert Lippe has been our Chief Operations Officer since June 2015. From February 2014 to June 2015, Mr. Lippe served as executive vice president of operations and chief operations officer at Alexza Pharmaceuticals, Inc. From January 2011 to February 2014, Mr. Lippe worked as the head of global operations at Ironwood Pharmaceuticals, Inc., and from March 2002 to January 2011, he was the head of manufacturing for one of Genentech, Inc.'s Vacaville operating facilities. From May 1992 to May 2002, Mr. Lippe worked at Lawrence Livermore National Laboratory as an assurance and facility manager. Mr. Lippe graduated with a Bachelor of Science in Marine Engineering from the United States Coast Guard Academy. Mr. Lippe holds a Master of Business Administration and Public Health from the University of California, Berkeley.

Dr. Robert Roscigno has been our Senior Vice President, Product Development since December 2017. He served as our Senior Vice President, Research and Development from March 2016 until December 2017 and our Vice President, Research and Development from September 2015 until March 2016. From January 2009 to September 2015, Dr. Roscigno served as the executive vice president, global clinical affairs of GeNO, LLC, a pharmaceutical company in the field of inhaled nitric oxide drug products. From July 2007 to January 2009, Dr. Roscigno provided scientific consulting for various companies in the pharmaceutical industry and also worked as a subject matter expert in PAH. From March 1997 to July 2007, Dr. Roscigno was the president and chief operations officer of Lung Rx, Inc., a subsidiary of United Therapeutics Corporation. Prior to Lung Rx, Inc., Dr. Roscigno served in multiple leadership positions at United Therapeutics Corporation. Dr. Roscigno graduated from Trinity College with a Bachelor of Science in Biology. He also holds a Doctor of Philosophy in Cell and Molecular Biology from Duke University.

Dr. Benjamin Maynor has been our Senior Vice President, Research and Development since January 2016. He served as our Vice President, Research and Development from March 2015 to January 2016. He joined us as a scientist in September 2005 and is a co-inventor of our PRINT technology. Dr. Maynor was seconded by us to Envisia Therapeutics Inc. from January 2013 to March 2015 where he served as Envisia's vice president, research. Dr. Maynor was also our Vice President, Research from January 2012 to January 2013, our Executive Director of Research from November 2011 to January 2012, our Director of Research from January 2010 to November 2011, our Principal Scientist from October 2009 to January 2010 and a Scientist of the Company from September 2005 to October 2009. Prior to joining us, Dr. Maynor was a postdoctoral associate at UNC from May 2004 to September 2005. He was also a scientist at Polestar Technologies, Inc. from September 1996 to June 1999. Dr. Maynor graduated from Harvard University with a Bachelor of Arts in Chemistry. He also holds a Doctor of Philosophy in Chemistry from Duke University. He is also a member of both the American Chemical Society and the American

Association of Pharmaceutical Scientists. Dr. Maynor was honored with the Kathryn C. Hach Award for Entrepreneurial Success in 2014 by the American Chemical Society.

Directors

Dr. Seth Rudnick is the Chairman of our Board and has been a member of our Board since March 2008, a member of our Compensation Committee since its formation in August 2016, a member of our Nominating and Corporate Governance Committee since its formation in , 2018 and a member of our Research and Development Committee since its formation in May 2017. Dr. Rudnick is currently a director of G1 Therapeutics, Inc. (Nasdaq: GTHX) and Aralez Pharmaceuticals, Inc. (Nasdaq: ARLZ). Dr. Rudnick previously served as a partner at Canaan Partners, a global venture capital firm, from January 1998 to December 2013. From January 1991 to January 1998, Dr. Rudnick was the chief executive officer and chairman of CytoTherapeutics, Inc. From July 1986 to January 1991, Dr. Rudnick worked at Ortho Biotech, Inc., a subsidiary of Johnson & Johnson, where he served as vice president, head of research and development. Dr. Rudnick also previously held directorships at Square 1 Bank, LQ3 Pharmaceuticals, Inc. and Spine Wave, Inc. Dr. Rudnick graduated from the University of Pennsylvania with a Bachelor of Arts in History. He also holds a Doctor of Medicine from the University of Virginia and a Diplomate in the Specialty of Internal Medicine from the American Board of Internal Medicine. We believe Dr. Rudnick is qualified to serve on our Board due to his industry experience, experience as a venture capitalist and senior executive and his experience of serving on the board of directors for several public and private pharmaceutical and life sciences companies.

Dr. Stephen Bloch has been a member of our Board since July 2009, a member of our Audit Committee since its formation in August 2016 and the Chairman of our Compensation Committee since its formation in August 2016. Dr. Bloch is currently a director of a number of private life sciences companies and served as a director of Marinus Pharmaceuticals, Inc. (Nasdaq: MRNS) from September 2005 until April 2016. Dr. Bloch has been a general partner at Canaan Partners, a global venture capital firm, since November 2007. From August 2003 to November 2007, Dr. Bloch was a principal at Canaan Partners. From January 1995 to June 2002, Dr. Bloch was the founder and chief executive officer of Radiology Management Sciences, LLC, a specialty medical management company. Dr. Bloch graduated from Dartmouth College with a Bachelor of Arts. Dr. Bloch also holds a Doctor of Medicine from the University of Rochester and a Master of Arts in the History of Science and Public Policy from Harvard University. We believe Dr. Bloch is qualified to serve on our Board due to his financial expertise, experience as a venture capitalist and his experience of serving on the board of directors for several public and private pharmaceutical and life sciences companies.

Edward Mathers has been a member of our Board since July 2009 and a member of our Compensation Committee since its formation in August 2016. Mr. Mathers is currently a partner at New Enterprise Associates, Inc., a global venture capital firm that invests in technology and healthcare companies. Mr. Mathers is currently a director of ObsEva SA (Nasdaq: OBSV), Ra Pharmaceuticals, Inc. (Nasdaq: RARX), Rhythm Pharmaceuticals, Inc. (Nasdaq: RYTM), Synlogic, Inc. (Nasdaq: SYBX) and a number of private life sciences companies. From July 2002 to August 2008, Mr. Mathers was the executive vice president, corporate development and venture of MedImmune, Inc. From August 2000 to July 2002, he was the vice president, marketing and corporate licensing and acquisitions, of Nektar Therapeutics, Inc. Prior to this, Mr. Mathers worked at Glaxo Wellcome, Inc. from July 1997 to August 2000, where he last held the role of vice president, e-business. Mr. Mathers graduated from the North Carolina State University with a Bachelor of Science in Chemistry. We believe Mr. Mathers is qualified to serve on our Board due to his experience as a venture capitalist, his experience as an executive and in business development and his experience in serving on the board of directors for several public and private pharmaceutical and life sciences companies.

Dr. Isaac Cheng has been a member of our Board since January 2010 and a member of our Audit Committee since its formation in August 2016. Dr. Cheng is currently an investment professional at the Morningside Technology Advisory, LLC, a division of the Morningside Group, a group that invests in venture

capital and private equity opportunities. He currently sits on the board of directors of NuCana PLC (Nasdaq: NCNA) and also sits on the boards of several of Morningside Group's private life sciences portfolio companies. Dr. Cheng previously served as director of research and development at Serica Technologies, Inc., from April 2004 to January 2005. Prior to that, Dr. Cheng was a scientific associate director of clinical development and medical affairs at Novartis Pharmaceuticals Corporation from March 2002 to April 2004. Dr. Cheng was also the recipient of a Howard Hughes Medical Institute Research Fellowship which supported his research in the Genetics and Aging Unit of the Massachusetts General Hospital and Harvard Medical School. Dr. Cheng graduated from the Tufts University School of Medicine with a Doctor of Medicine. We believe Dr. Cheng is qualified to serve on our Board due to his financial expertise, experience as a venture capitalist, industry experience and his experience in serving on the board of directors for several public and private life sciences companies.

Dr. Ralph Snyderman has been a member of our Board since February 2007, the Chairman of our Nominating and Corporate Governance Committee since its formation in , 2018 and a member of our Research and Development Committee since its formation in May 2017. Dr. Snyderman is currently a director of CareDx, Inc. (Nasdaq: CDNA), iRhythm Technologies, Inc. (Nasdaq: IRTC) and a number of private life sciences companies. Dr. Snyderman also served as a director of Argos Therapeutics, Inc. (Nasdaq: ARGS) from December 2016 until March 2017. Dr. Snyderman is currently Chancellor Emeritus of Duke University, the James B. Duke Professor of Medicine, as well as a director of the Duke Center for Research on Personalized Health Care. From January 1989 to July 2004, he served as Chancellor for Health Affairs and Dean of the Duke University School of Medicine. From July 1998 to July 2004, Dr. Snyderman also oversaw the development of the Duke University Health System as its first president and chief executive officer. From January 1987 to June 1989, Dr. Snyderman served as senior vice president, medical research and development at Genentech, Inc. From February 1972 to June 1987, he was a Professor of Medicine at the Duke University. From July 1970 to February 1972, Dr. Snyderman started his career at the National Institutes of Health as a senior investigator. Dr. Snyderman previously served as a venture partner at New Enterprise Associates, Inc., a venture capital firm, from January 2006 to November 2009. Dr. Snyderman graduated from Washington College with a Bachelor of Science and from the State University of New York Downstate Medical Center with a Doctor of Medicine. Dr. Snyderman holds an honorary Doctor of Science from the State University of New York and an honorary Doctor of Science from Washington College. He currently holds memberships in the American Academy of Arts & Sciences, the National Academy of Medicine as well as the Association of American Physicians. Dr. Snyderman is also a recipient of several awards, including the Pioneer Award by the Personalized Medicine World Congress in 2016, as well as the North American Healthcare Lifetime Achievement Award by Frost & Sullivan in 2008 for his leadership in the field of personalized health care. We believe Dr. Snyderman is qualified to serve on our Board due to his extensive industry experience and knowledge and his experience serving on the board of directors of several public and private biotechnology and life sciences companies.

Arthur Kirsch has been a member of our Board since September 2016 and the Chairman of our Audit Committee since its formation in August 2016. Mr. Kirsch is currently a director of Aralez Pharmaceuticals, Inc. (Nasdaq: ARLZ). From August 2015 until October 2016, Mr. Kirsch served as a director of Immunomedics, Inc. (Nasdaq: IMMU). Since June 2005, Mr. Kirsch has served as the managing director and senior advisor, as well as global head of medical devices and diagnostics, of GCA Global, LLC, a global investment banking firm. From May 1994 to May 2004, he served as executive vice president, head of research at Vector Securities, LLC. From February 1990 to May 1993, Mr. Kirsch served as president of Natwest Securities Limited. From June 1979 to February 1990, Mr. Kirsch worked at Drexel Burnham Lambert, Inc., an investment banking firm, where he held the position of executive vice president, head of equity division. Mr. Kirsch graduated from the University of Rhode Island with a Bachelor of Science and also holds a Master of Business Administration from The City University of New York. We believe Mr. Kirsch is qualified to serve on our Board due to his business and financial expertise and his experience serving on the boards of directors of several public pharmaceutical and life sciences companies.

Jason Rushton has been a member of our Board since July 2017. Mr. Rushton has been a partner at Xeraya Capital Labuan Ltd, a life science venture capital fund of Khazanah Nasional, a Malaysian sovereign wealth fund, since October 2016. From February 2011 to June 2016, he served as director in the corporate finance advisory arm of Deloitte AG, where he provided corporate finance advisory services to clients in the life sciences industry. From November 2010 to January 2011, Mr. Rushton was self-employed as a consultant providing independent strategy consulting services. From September 2006 to May 2010, Mr. Rushton was an investment manager at Inventages Venture Capital Investment, Inc., a life science investment fund established by Nestlé S.A. From July 2000 to August 2006, Mr. Rushton was also an associate in Merlin Biosciences Fund, L.P., a life science investment fund, and, from June 1997 to July 2000, he was a management consultant in PA Consulting Group, a global management consulting firm. From 1994 to June 1997, Mr. Rushton worked as a biologist in Eli Lilly and Company, a global pharmaceutical company. Mr. Rushton holds a Master of Science in Immunology from the University of Birmingham. We believe Mr. Rushton is qualified to serve on our Board due to his business and financial expertise and his experience as a venture capitalist in the healthcare industry.

Raman Singh has been a member of our Board since February 2018 and a member of our Nominating and Corporate Governance Committee since its formation in , 2018. Since October 2011, Mr. Singh has served as the chief executive officer of Mundipharma Pte Limited, which is part of a network of independent associated companies active in the fields of analgesia, oncology, ophthalmology, respiratory, specialty care and consumer health. Mr. Singh graduated from Osmania University with a Bachelors in Mechanical Engineering in 1992. He also holds Masters in International Management from Thunderbird School of Global Management and in Business Administration from Assumption University. We believe Mr. Singh is qualified to serve on our Board due to his vast industry experience and knowledge as well as his business experience.

Key Employees

Timothy Albury has been our Senior Vice President, Chief Accounting Officer since January 2018. From June 2013 until January 2018, Mr. Albury served as our Chief Financial Officer. From September 2009 to June 2013, Mr. Albury served as the chief financial officer of Osmotica Pharmaceutical Corp., a multinational specialty pharmaceutical company in the field of osmotic drug delivery. Mr. Albury graduated from Liberty University with a Bachelor of Science and completed a Master of Professional Accounting program at the University of Miami. He is also a Certified Public Accountant with the North Carolina State Board of Certified Public Accountant Examiners and the State of Florida Board of Accountancy as well as a member of the American Institute of Certified Public Accountants.

Jeri Thomas has been our Senior Vice President, Commercial since May 2018. From June 2017 to March 2018, Ms. Thomas was senior vice president, strategic group planning at Harrison and Star, a healthcare marketing agency. From July 2016 to June 2017, Ms. Thomas was the managing director at JFB Consulting, a marketing consulting firm. From October 2014 to July 2016, Ms. Thomas served as senior vice president of the Surgical & Perioperative Care Business Unit at The Medicines Company. Prior to The Medicines Company, Ms. Thomas was at Janssen Pharmaceuticals (a Johnson & Johnson company) from December 2001 to October 2014, where she held various senior leadership positions, including vice president, market strategy & access for Latin America, vice president, new business and new product planning, and director of marketing, analgesic franchise. Ms. Thomas obtained her Master of Business Administration in a dual program from the McDonough School of Business at Georgetown University and ESADE Business School in Barcelona, Spain. She holds a Bachelor of Science in Health Planning and Administration from Penn State University.

Jason Adair has been our Vice President, Business Development and Strategy since January 2016. From August 2011 through December 2015, Mr. Adair served as the executive director of corporate development at BioCryst Pharmaceuticals, Inc. (Nasdaq: BCRX). Mr. Adair holds a Bachelor of Science in Chemistry from Wake Forest University and a Master of Business Administration from the Tuck School of Business at Dartmouth College.

Corporate Governance

Board Composition

Our amended and restated bylaws that will become effective upon the closing of this offering provides that our Board shall consist of that number of directors to be determined from time to time by vote of our Board, provided that such authorized number shall be no fewer than three and no greater than 11 members, and is currently set at nine members. Currently our Board consists of Drs. Bloch, Cheng, Rudnick and Snyderman, and Messrs. Fowler, Kirsch, Mathers, Rushton and Singh.

In accordance with our amended and restated bylaws and our amended and restated certificate of incorporation, which will be in effect upon the closing of this offering, our Board will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders after the initial classification, the successors to the directors whose terms will then expire will be elected to serve from the time of election and qualification until the third annual meeting following their election. Our directors will be divided among the three classes as follows:

- the Class I directors will be Mr. Mathers and Dr. Snyderman, and their terms will expire at the annual meeting of stockholders to be held in 2019;
- the Class II directors will be Drs. Bloch and Rudnick and Mr. Singh, and their terms will expire at the annual meeting of stockholders to be held in 2020; and
- the Class III directors will be Messrs. Fowler and Kirsch, and their terms will expire at the annual meeting of stockholders to be held in 2021.

Effective upon completion of this offering, Dr. Cheng and Mr. Rushton will no longer serve on our Board.

Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of our Board may have the effect of delaying or preventing changes in control of our company.

Election Arrangements

Each of our directors were elected pursuant to a voting agreement by and among us, our preferred stockholders and our common stockholders. These provisions will terminate upon the closing of this offering and there will be no further contractual obligations, or terms of our outstanding securities, regarding the election of our directors.

Director Independence

Our Board has determined that upon completion of this offering, Drs. Bloch, Rudnick and Snyderman, and Messrs. Kirsch, Mathers and Singh will be independent directors. In making this determination, our Board applied the standards set forth in the Nasdaq listing standards and in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. In evaluating the independence of Drs. Bloch, Rudnick and Snyderman, and Messrs. Kirsch, Mathers and Singh, our Board considered their current and historical employment, any compensation we have given to them, any transactions we have entered into with them, their beneficial ownership of our capital stock, their ability to exert control over us, all other material relationships they have had with us and the same facts with respect to their immediate families. The Board also considered all other relevant facts and circumstances known to it in making this independence determination. In addition, Drs. Bloch, Rudnick and Snyderman, and Messrs. Kirsch, Mathers and Singh are non-employee directors, as defined in Rule 16b-3 of the Exchange Act.

Code of Conduct

In October 2016, we adopted a code of conduct, which applies to all of our employees, officers and directors, including those officers responsible for financial reporting. Prior to consummation of this offering, we will amend our code of conduct to qualify as a "code of ethics" as defined by the rules of the SEC. Following the completion of this offering, the code of conduct will be available on our website at www.liquidia.com. We intend to disclose any amendments to the code of conduct, or any waivers of its requirements, on our website to the extent required by the applicable rules and exchange requirements. The

inclusion of our website address in this prospectus does not incorporate by reference the information on or accessible through our website into this prospectus.

Board Committees

Audit Committee

The Audit Committee of our Board oversees the quality and integrity of our financial statements and other financial information, accounting and financial reporting processes, internal controls and procedures for financial reporting and internal audit function. It also oversees the audit and other services provided by our independent auditors and is directly responsible for the appointment, independence, qualifications, compensation and oversight of the independent auditor. In addition, our audit committee is responsible for reviewing our compliance with legal and regulatory requirements, and it assists the Board in an initial review of recommendations to the Board regarding proposed business transactions.

The current members of our Audit Committee are Drs. Bloch and Cheng and Mr. Kirsch. The Chairman of our Audit Committee is Mr. Kirsch. Upon the effectiveness of the registration statement of which this prospectus forms a part, the members of our Audit Committee will be Dr. Bloch and Messrs. Kirsch and Singh, with Mr. Kirsch continuing to serve as Chairman. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and Nasdaq. Our Board has determined that Mr. Kirsch is an "audit committee financial expert" as defined under the applicable rules of the SEC and has the requisite financial sophistication as defined under the applicable rules and regulations of Nasdaq. Under the rules of the SEC, members of the audit committee must also meet heightened independence standards. Our Board has determined that each of Dr. Bloch and Messrs. Kirsch and Singh are independent under the heightened audit committee independence standards of the SEC and Nasdaq. The Audit Committee operates under a written charter that satisfies the applicable standards of the SEC and Nasdaq.

Compensation Committee

The Compensation Committee of our Board reviews and determines the compensation of all of our executive officers and establishes our compensation policies and programs. Specific responsibilities of our compensation committee will include, among other things, evaluating the performance of our Chief Executive Officer and determining our Chief Executive Officer's compensation. It also determines the compensation of our other executive officers. In addition, our Compensation Committee administers all equity compensation plans and has the authority to grant equity awards subject to the terms and conditions of such equity compensation plans. Our Compensation Committee also reviews and approves various other compensation policies and matters, including establishing policies and making recommendations to our Board regarding director compensation. Our Compensation Committee may also review and discuss with management the compensation discussion and analysis that we may be required from time to time to include in SEC filings, and it may prepare a compensation committee report on executive compensation as may be required from time to time to be included in our annual proxy statements or annual reports on Form 10-K filed with the SEC.

The current members of our Compensation Committee are Drs. Bloch and Rudnick and Mr. Mathers. The Chairman of our Compensation Committee is Dr. Bloch. Upon the effectiveness of the registration statement of which this prospectus forms a part, the members of our Compensation Committee will be Drs. Bloch and Rudnick and Mr. Mathers, with Dr. Bloch continuing to serve as Chairman. Each of the members of our Compensation Committee is independent under the applicable rules and regulations of Nasdaq, and is a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act. The Compensation Committee operates under a written charter that satisfies the applicable standards of the SEC and Nasdaq.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of our Board, which will be formed prior to the consummation of this offering, will oversee the nomination of directors, including, among other things, identifying, evaluating and making recommendations of nominees to our Board, and evaluating the

performance of our Board and individual members of our Board. When identifying nominees, the Nominating and Corporate Governance Committee will consider, among other things, a nominee's character and integrity, level of education and business experience, financial literacy and commitment to represent long-term interests of our equity holders. Our Nominating and Corporate Governance Committee will also be responsible for reviewing developments in corporate governance practices, evaluating the adequacy of our corporate governance practices and making recommendations to our Board concerning corporate governance matters.

Upon its formation, the members of our Nominating and Corporate Governance Committee will be Drs. Snyderman and Rudnick and Mr. Singh, with Dr. Snyderman serving as the Chairman. The composition of our Nominating and Corporate Governance Committee will, as of the time of the effectiveness of the registration statement of which this prospectus forms a part, meet the requirements for independence under the rules and regulations of the SEC and the listing standards of Nasdaq. The Nominating and Corporate Governance Committee will operate under a written charter that satisfies the applicable standards of the SEC and Nasdaq.

Research and Development Committee

The current members of our Research and Development Committee are Drs. Rudnick and Snyderman, who are, respectively, the Chairman and Vice-Chairman of our Research and Development Committee. The role of our Research and Development Committee is to make recommendations to our Board regarding our research and development functions and programs, including our research and development strategies, priorities and opportunities.

Compensation Committee Interlocks and Insider Participation

None of the members of our Compensation Committee is an executive officer or employee of our company. None of our executive officers serves as a member of the Compensation Committee of any entity that has one or more executive officers serving on our Compensation Committee.

Director Compensation

The following table presents the total compensation for each person who served as a non-employee member of our Board and received compensation for such service during the fiscal year ended December 31, 2017. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to or pay any other compensation to any of the non-employee members of our Board in 2017. We reimburse non-employee members of our Board for reasonable travel expenses. Mr. Fowler, a member of our Board who also serves as our Chief Executive Officer, does not receive any additional compensation for his service as a director. Mr. Fowler's compensation for service as an employee for 2017 is presented in "Executive Compensation — 2017 Summary Compensation Table."

	Fees Earned or Paid in Cash ($)[1]	Total ($)
Dr. Seth Rudnick	120,000	120,000
Dr. Stephen Bloch[2]	—	—
Edward Mathers[2]	—	—
Dr. Isaac Cheng[2]	—	—
Dr. Ralph Snyderman	60,000	60,000
Arthur Kirsch	50,000	50,000
Jason Rushton[2]	—	—

(1) Fees earned pursuant to a board service agreement.

(2) Investor-appointed directors did not receive fees or other compensation for their service on our Board.

The following table lists all outstanding option awards held by our non-employee directors as of December 31, 2017:

Name	Option Awards
Dr. Seth Rudnick	629,016
Dr. Stephen Bloch	—
Edward Mathers	—
Dr. Isaac Cheng	—
Dr. Ralph Snyderman	92,495
Arthur Kirsch	150,000
Jason Rushton	—
Raman Singh	—

Board Service Agreements

Mr. Kirsch and Drs. Rudnick and Snyderman are each parties to individual board service agreements with us which shall terminate upon consummation of this offering. Each individual board service agreement is described below.

Rudnick

On April 1, 2015, we and Dr. Rudnick entered into a board service agreement whereby, in exchange for Dr. Rudnick serving as a non-employee member of the Board and providing periodic additional consulting or advisory services to us from time to time, we (i) pay Dr. Rudnick $120,000 annually for serving on the Board and (ii) granted a nonstatutory stock option to Dr. Rudnick to purchase 205,000 shares of common stock, with an exercise price equal to $0.28 per share and vesting over a four year period commencing July 1, 2016, pursuant to the Liquidia Technologies, Inc. Stock Option Plan, as amended, or the 2004 Plan.

Snyderman

On April 1, 2015, we and Dr. Snyderman entered into a board service agreement whereby, in exchange for Dr. Snyderman serving as a non-employee member of the Board and providing periodic additional consulting or advisory services to us from time to time, we (i) pay Dr. Snyderman $60,000 annually and (ii) granted a nonstatutory stock option to Dr. Snyderman to purchase 100,000 shares of common stock, with an exercise price equal to $0.28 per share and vesting over a four year period commencing April 1, 2015, pursuant to the 2004 Plan.

Kirsch

On December 7, 2016, we and Mr. Kirsch entered into a board service agreement whereby, in exchange for Mr. Kirsch acting as a non-employee member of the Board, acting as a non-employee chairman of the Audit Committee and providing periodic additional consulting or advisory services to us from time to time, we (i) pay Mr. Kirsch $35,000 annually for serving on the Board, (ii) pay Mr. Kirsch $15,000 annually for participating as the Chairman of the Audit Committee and (iii) granted a nonstatutory stock option to Mr. Kirsch to purchase 150,000 shares of common stock, with an exercise price equal to $1.21 per share and vesting over a four year period commencing December 7, 2016, pursuant to the 2016 Plan.

2018 Option Grant to Raman Singh

In connection with his appointment to our Board, on March 7, 2018 we granted Mr. Singh an option to purchase 285,000 shares of common stock, or the Singh Option Shares, under our 2016 Plan, with one-third of the Singh Option Shares vesting on March 7, 2019, and the remaining two-thirds of the Singh Option Shares vesting monthly thereafter over a period of two years.

Other 2018 Option Grants

On March 7, 2018, we granted each of Mr. Kirsch and Drs. Rudnick and Snyderman options to purchase 135,000, 930,000 and 460,000 shares of common stock, respectively, under our 2016 Plan, with one-third of such option shares vesting on March 7, 2019 and the remaining two-thirds of such option shares vesting monthly thereafter over a period of two years.

On the date of execution of the underwriting agreement, we expect to grant, under the 2018 Plan, certain directors an aggregate of shares of common stock issuable upon the exercise of stock options. These options will have an exercise price equal to the initial public offering price.

Non-Employee Director Compensation Policy

Our Board has adopted a non-employee director compensation policy, effective upon effectiveness of the registration statement of which this prospectus forms a part, that is designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors. Under the policy, each director who is not an employee will be paid cash compensation from and after the completion of this offering, as set forth below:

	Member Annual Fee ($)	Chairman Additional Annual Fee ($)
Board of Directors	35,000	25,000
Audit Committee	7,500	15,000
Compensation Committee	5,000	10,000
Nominating and Corporate Governance Committee	3,750	7,500

Additionally, the Chairman of our Research and Development Committee will be paid $32,000 annually in cash compensation and the Vice-Chairman of our Research and Development Committee will be paid $15,000 annually in cash compensation.

EXECUTIVE COMPENSATION

The following section provides compensation information pursuant to the scaled disclosure rules applicable to "emerging growth companies" under the rules of the SEC.

Named Executive Officers

Our named executive officers for the year ended December 31, 2017, which consisted of our principal executive officer and two other most highly compensated executives, were:

- Neal Fowler;
- Timothy Albury; and
- Robert Lippe.

Timothy Albury ceased service as our Chief Financial Officer, and Kevin Gordon began service as our President and Chief Financial Officer, on January 22, 2018.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the completion of this offering may differ materially from the currently planned programs summarized in this discussion. See "Cautionary Note Regarding Forward-Looking Statements."

2017 Summary Compensation Table

The following table sets forth certain information with respect to the total compensation paid to the named executive officers for the year ended December 31, 2017:

Name and principal position	Year	Salary ($)	Non-equity incentive plan compensation ($)[1]	All other compensation ($)[2]	Total ($)
Neal Fowler *Chief Executive Officer*	2017	411,769	164,800	10,800	587,369
Timothy Albury *Former Chief Financial Officer*[3]	2017	341,847	109,454	10,800	462,101
Robert Lippe *Chief Operations Officer*	2017	397,048	127,126	10,800	534,974

(1) Represents bonuses earned during the fiscal year covered.

(2) Represents contributions to our 401(k) plan on behalf of each of our named executive officers.

(3) On January 22, 2018, Mr. Albury's title changed from Chief Financial Officer to Senior Vice President, Chief Accounting Officer.

Narrative Disclosure to 2017 Summary Compensation Table

2017 Base Salary

The named executive officers receive a base salary to compensate them for services rendered to our company. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities.

We expect that, following the completion of this offering, base salaries for the named executive officers will be reviewed periodically by the Board and/or the Compensation Committee, with adjustments expected to be made generally in accordance with the applicable employment agreements, as well as financial and other business factors affecting our company, and to maintain a competitive compensation package for our executive officers.

2017 Performance-Based Compensation and Bonuses

Our named executive officers are entitled to annual bonuses calculated as a target percentage of their annual base salary based upon our Compensation Committee's assessment of their performance and our attainment of targeted goals as set by the Compensation Committee in their sole discretion, and communicated to each named executive officer. For 2017, bonuses were based on the Compensation Committee's assessment of each named executive officer's and our performance.

2017 Other Compensation

We contribute to our 401(k) plan on behalf of our named executive officers, but we have no pension benefits, nonqualified defined contribution or other nonqualified deferred compensation plans for our named executive officers.

Fowler and Gordon Employment Agreements

We entered into an amended and restated employment agreement with Mr. Fowler, our Chief Executive Officer, on January 31, 2018, and an employment agreement with Mr. Gordon, our Chief Financial Officer, on January 22, 2018, together, the Executive Employment Agreements, and individually, an Executive Employment Agreement, pursuant to which Mr. Fowler is entitled to receive an annual base salary of $480,000 and an annual target bonus equal to 50% of his annual base salary and Mr. Gordon is entitled to receive an annual base salary of $450,000 and an annual target bonus equal to 40% of his annual base salary. The annual bonus amounts shall be based upon our Board's assessment of Messrs. Fowler and Gordon's respective performances and our attainment of targeted goals as set by the Board in its sole discretion. The Executive Employment Agreements also contain provisions related to a confidentiality, inventions assignment, non-competition and non-solicitation and non-disparagement, pursuant to which each of Messrs. Fowler and Gordon agree to refrain from disclosing our confidential information during or at any time following their employment with us and from competing with us or soliciting our employees or customers during their employment and for 12 months following termination of their employment.

The Executive Employment Agreements provide that, in the event that either Messrs. Fowler's or Gordon's employment is terminated by us without "cause" or by him for "good reason," subject to the execution and effectiveness of a separation agreement and release, he will be entitled to receive (i) an amount equal to (x) 12 months of base salary plus the amount of the bonus he would have earned had he remained employed pro-rated based on the number of days that the he was employed with us during the applicable fiscal year, payable on our normal payroll cycle if such termination is not in connection with a "change in control" or (y) 18 months of base salary plus an amount equal to 1.5 times his target bonus and 100% vesting of the unvested portion of his equity for Mr. Fowler and 12 months of base salary plus an amount equal to his target bonus and 100% vesting of the unvested portion of his equity for Mr. Gordon if such termination is within the 12 month period following a "change in control," and (ii) reimbursement of COBRA premiums for health benefit coverage for him and his immediate family in an amount equal to the monthly employer contribution that we would have made to provide health insurance to Messrs. Fowler or Gordon, as applicable had he remained employed with us for up to 12 months following termination if such termination is not in connection with a "change in control."

Under the Executive Employment Agreements, "cause" means that we have determined, in our sole discretion, that Messrs. Fowler or Gordon has engaged in any of the following: (a) any material breach of the terms of the applicable Executive Employment Agreement, or a willful failure to diligently and properly perform material duties for us; (b) misappropriation or unauthorized use of our tangible or intangible property that causes or is likely to cause material harm to us or our reputation, or material breach of the

confidentiality, inventions and non-competition agreement entered between him and our company or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (c) any material failure to comply with our policies or any other policies and/or directives of our Board; (d) use of illegal drugs or any illegal substance, or use of alcohol in any manner that materially interferes with the performance of employment duties; (e) any dishonest or illegal action, or any other action, whether or not dishonest or illegal, which is materially detrimental to our interest and well-being; (f) failure to disclose any material conflict of interest in a transaction being us and any third party which is materially detrimental to our interest and well-being; (g) any adverse action or omission which would be required to be disclosed pursuant to public securities laws or limit our ability, or the ability of any entity affiliated with us, to sell securities under any federal or state law which would disqualify us from any exemption otherwise available to us; or (h) any material violation of our policies prohibiting unlawful harassment, discrimination, retaliation or workplace violence; provided that, before we may terminate Messrs. Fowler or Gordon for cause, if the grounds for such cause are reasonably capable of cure by him, we will provide him with written notice of the grounds of cause and provide him with 10 business days in which to cure such cause.

Under the Executive Employment Agreements, "good reason" means the occurrence of any of the following without the Messrs. Fowler's or Gordon's prior consent, as applicable: (a) a material diminution in the executive's authority, duties or responsibility; (b) a material diminution in the executive's base salary or bonus target; (c) a requirement that the executive report to an employee other than the Board for Mr. Fowler or the Chief Executive Officer for Mr. Gordon; (d) the executive's principal place of employment is relocated by more than 25 miles for Mr. Fowler and 50 miles for Mr. Gordon from our present location in Research Triangle Park, North Carolina; or (e) for Mr. Fowler only, materially breach our obligations under his Executive Employment Agreement. In addition, for any of the above events to constitute good reason, Mr. Fowler or Mr. Gordon, as applicable, must inform us of the existence of the event within 60 days of the initial existence of the event, after which date we shall have no less than 30 days to cure the event which otherwise would constitute good reason, and Mr. Fowler or Mr. Gordon, as applicable, must terminate his employment with us for such good reason no later than 90 days after the initial existence of the event.

Pursuant to his Executive Employment Agreement, on March 7, 2018 Mr. Gordon was granted a stock option award to purchase shares of our common stock equal to 1% (2,146,767 shares) of our capital stock on a fully-diluted basis on the date of grant and a restricted stock unit award equal to approximately 1% (2,146,767 shares) of our capital stock on a fully-diluted basis on the date of grant, or the Sign-On Award. The option and restricted stock unit award vest as to 25% of the shares underlying the option and the award on the first anniversary of Mr. Gordon's start date and, as to the remainder, in 36 equal monthly installments on the first day of each month thereafter, subject to Mr. Gordon's continued employment. Further, on the date of execution of the underwriting agreement Mr. Gordon is also entitled to (i) an additional stock option award under the 2018 Plan to purchase shares of our common stock equal to 1% of our capital stock on a fully-diluted basis on the date of grant (shares assuming we sell shares in this offering) with an exercise price per share equal to the initial public offering price and (ii) a restricted stock unit award equal to 1% of our capital stock on a fully-diluted basis on the date of grant (shares assuming we sell shares in this offering). These additional awards will be on the same terms as the Sign-On Award (except the vesting start date is as of the grant date) and granted upon the earlier of (i) us consummating an initial public offering of our common stock or (b) us entering into an equity financing transaction or a series of such transactions up to an aggregate amount of $20 million (excluding the closing of the Series D transaction), or the Additional Equity Grant. Such Additional Equity Grant shall be granted, if at all, on the date of the execution of the underwriting agreement of the initial public offering or closing date of the equity financing, as applicable.

Lippe Employment Agreement

In connection with this offering, we will enter into a new employment agreement with Mr. Lippe, or the Lippe Employment Agreement, which will take effect as of the effectiveness of the registration statement of

which this prospectus forms a part and which shall supersede Mr. Lippe's employment agreement entered into on April 1, 2017. The Lippe Employment Agreement reflects updated and enhanced severance terms which include certain change in control severance benefits.

Pursuant to the terms of Lippe Employment Agreement, Mr. Lippe shall be entitled to an annual base salary of $409,189, which reflects Mr. Lippe current salary and is eligible to receive a discretionary annual cash bonus of up to 40% of his annualized base salary, which is consistent with his current agreement.

The base salary of Mr. Lippe may be increased from time to time by our Board, and, notwithstanding anything to the contrary, may also be reduced if our Board determines such reduction is necessary and justified by our financial condition and implements an equal percentage reduction in the base salaries of all of our executive officers, provided that such reduction will not be greater than 10% of his base salary.

In accordance with the employment practices in North Carolina, Mr. Lippe will be employed by us on an at-will basis, meaning that either we or such executives may terminate their employment with us at any time without giving advance notice. The Lippe Employment Agreement shall be governed by the laws of North Carolina and the notice periods mentioned above that have been included in the Lippe Employment Agreement may be subject to interpretation in accordance with the laws of North Carolina and the employment practices in North Carolina as well.

In the event we terminate Mr. Lippe's employment with us at any time without "cause" or Mr. Lippe resigns from his employment with us for "good reason", as such terms are defined in the Lippe Employment Agreement, then he will be entitled to receive, subject to his compliance with certain obligations:

(a) an amount equal to his then-current salary for nine months, or the Lippe Severance Period;

(b) a pro-rated bonus for the financial year in which the termination of Mr. Lippe's employment occurred; and

(c) payment of the employer portion of the premiums required to continue his group healthcare coverage under the applicable provisions of the U.S. Consolidated Omnibus Budget Reconciliation Act of 1985, or COBRA, provided that he elects to continue and remains eligible for these benefits, until the earliest of (i) the close of the Lippe Severance Period, (ii) the expiration of his eligibility for the continuation coverage under COBRA or (iii) the date when he becomes eligible for substantially equivalent health insurance coverage in connection with new employment.

In the event Mr. Lippe's employment with us is terminated for cause or due to his death or "disability", as defined in the Lippe Employment Agreement or Mr. Lippe resigns from his employment with us for any reason other than a resignation for good reason, he will not receive any severance compensation or benefits.

Under the Lippe Employment Agreement, "cause" shall mean that we have determined, in our sole discretion, that he has engaged in any of the following: (a) any material breach of the terms of the Lippe Employment Agreement, or a willful failure to diligently and properly perform material duties for us; (b) misappropriation or unauthorized use of our tangible or intangible property that causes or is likely to cause material harm to us or our reputation, or material breach of the confidentiality, inventions and non-competition agreement entered between him and our company or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (c) any material failure to comply with our policies or any other policies and/or directives of our Board; (d) use of illegal drugs or any illegal substance, or use of alcohol in any manner that materially interferes with the performance of employment duties; (e) any dishonest or illegal action, or any other action, whether or not dishonest or illegal, which is materially detrimental to our interest and well-being; (f) failure to disclose any material conflict of interest in a transaction being us and any third party which is materially detrimental to our interest and well-being; (g) any adverse action or omission which would be required to be disclosed

pursuant to public securities laws or limit our ability, or the ability of any entity affiliated with us, to sell securities under any federal or state law which would disqualify us from any exemption otherwise available to us; (h) becoming prohibited by law or any order from any regulatory body or governmental body from being an employee or director of any company, firm or entity; provided that, before we may terminate Mr. Lippe for cause, if the grounds for such cause are reasonably capable of cure by him, we will provide him with written notice of the grounds of cause and provide him with 10 business days in which to cure such cause.

Under the Lippe Employment Agreement, "good reason" means the occurrence of any of the following without. Mr. Lippe's prior consent: (a) a material diminution in his authority, duties or responsibility; (b) a material diminution in his base compensation; (c) a requirement that he report to an employee other than the Chief Executive Officer; (d) his principal place of employment is relocated by more than 25 miles from our present location in Research Triangle Park, North Carolina; or (e) we materially breach our obligations under the Lippe Employment Agreement. In addition, for any of the above events to constitute good reason, Mr. Lippe must inform us of the existence of the event within 60 days of the initial existence of the event, after which date we shall have no less than 30 days to cure the event which otherwise would constitute good reason, and Mr. Lippe must terminate his employment with us for such good reason no later than 90 days after the initial existence of the event. Also, any action taken by us to accommodate a disability of Mr. Lippe or pursuant to the U.S. Family and Medical Leave Act of 1993 does not constitute good reason.

In the event we, or any surviving or acquiring corporation, terminate Mr. Lippe's employment without cause or he resigns for good reason within 12 months following the effective date of a "change in control", as defined in the 2018 Plan, then Mr. Lippe will be eligible to receive, subject to his compliance with certain obligations, the same severance benefits on the same conditions as if he had been terminated by us without cause; provided, however, that (a) the Lippe Severance Period shall be increased to 12 months, (b) Mr. Lippe's annual bonus shall instead be paid at the target amount for the Lippe Severance Period, and (c) in the event that Mr. Lippe's outstanding equity as of the closing of the change in control is assumed or continued (in accordance with its terms) by the surviving entity in a change in control, then 100.0% of the unvested portion of such equity shall become vested.

Albury Employment Agreement

In connection with this offering, we will enter into a new employment agreement with Mr. Albury, or the Albury Employment Agreement, which will take effect as of the effectiveness of the registration statement of which this prospectus forms a part and which shall supersede Mr. Albury's amended and restated employment agreement entered into on January 22, 2018. The Albury Employment Agreement reflects updated and enhanced severance terms which include certain change in control severance benefits.

Pursuant to the terms of Albury Employment Agreement, Mr. Albury shall be entitled to an annual base salary of $352,000 and shall be eligible to receive a discretionary annual cash bonus of up to 25% of his annualized base salary, which amounts are consistent with what Mr. Albury is entitled to, and eligible to receive under, his current amended and restated employment agreement.

The base salary of Mr. Albury may be increased from time to time by our Board, and, notwithstanding anything to the contrary, may also be reduced if our Board determines such reduction is necessary and justified by our financial condition and implements an equal percentage reduction in the base salaries of all of our executive officers, provided that such reduction will not be greater than 10% of his base salary.

In accordance with the employment practices in North Carolina, Mr. Albury will be employed by us on an at-will basis, meaning that either we or such executive may terminate his employment with us at any time without giving advance notice. The Albury Employment Agreement is governed by the laws of North Carolina and the notice periods mentioned above that have been included in the Albury Employment Agreement may be subject to interpretation in accordance with the laws of North Carolina and the employment practices in North Carolina as well.

In the event we terminate Mr. Albury's employment with us at any time without "cause" or Mr. Albury terminates his employment with us for "good reason", as such terms are defined in the Albury Employment Agreement, then the relevant executive will be entitled to receive, subject to his compliance with certain obligations:

(a) an amount equal to his then-current salary for six months, or the Albury Severance Period;

(b) a pro-rated bonus for the financial year in which the termination of Mr. Albury's employment occurred; and

(c) payment of the employer portion of the premiums required to continue his group healthcare coverage under the applicable provisions of COBRA, provided that he elects to continue and remains eligible for these benefits, until the earliest of (i) the close of the Albury Severance Period, (ii) the expiration of his eligibility for the continuation coverage under COBRA or (iii) the date when he becomes eligible for substantially equivalent health insurance coverage in connection with new employment.

In the event Mr. Albury's employment with us is terminated for cause or due to his death or "disability", as defined in the Albury Employment Agreement, or Mr. Albury resigns from his employment with us for any reason other than a resignation for good reason, he will not receive any severance compensation or benefits.

Under the Albury Employment Agreement, "cause" means that we have determined, in our sole discretion, that he has engaged in any of the following: (a) any material breach of the terms of the Albury Employment Agreement, or a willful failure to diligently and properly perform material duties for us; (b) misappropriation or unauthorized use of our tangible or intangible property that causes or is likely to cause material harm to us or our reputation, or material breach of the Confidentiality, Inventions and Non-Competition Agreement entered between him and our company or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (c) any material failure to comply with our policies or any other policies and/or directives of our Board; (d) use of illegal drugs or any illegal substance, or use of alcohol in any manner that materially interferes with the performance of employment duties; (e) any dishonest or illegal action, or any other action, whether or not dishonest or illegal, which is materially detrimental to our interest and well-being; (f) failure to disclose any material conflict of interest in a transaction being us and any third party which is materially detrimental to our interest and well-being; (g) any adverse action or omission which would be required to be disclosed pursuant to public securities laws or limit our ability, or the ability of any entity affiliated with us, to sell securities under any federal or state law which would disqualify us from any exemption otherwise available to us; (h) becoming prohibited by law or any order from any regulatory body or governmental body from being an employee or director of any company, firm or entity; provided that, before we may terminate Mr. Albury for cause, if the grounds for such cause are reasonably capable of cure by him, we will provide him with written notice of the grounds of cause and provide him with 10 business days in which to cure such cause.

Under the Albury Employment Agreement, "good reason" means the occurrence of any of the following without. Mr. Albury's prior consent: (a) a material diminution in the executive's authority, duties or responsibility; (b) a material diminution in the executive's base compensation; (c) a requirement that the executive report to an employee other than the Chief Financial Officer; (d) the executive's principal place of employment is relocated by more than 50 miles from our present location in Research Triangle Park, North Carolina; or (e) we materially breach our obligations under the Albury Employment Agreement. In addition, for any of the above events to constitute good reason, Mr. Albury must inform us of the existence of the event within 60 days of the initial existence of the event, after which date we shall have no less than 30 days to cure the event which otherwise would constitute good reason, and Mr. Albury must terminate his employment with us for such good reason no later than 90 days after the initial existence of the event. Also, any action taken by us to accommodate a disability of Mr. Albury or pursuant to the U.S. Family and Medical Leave Act of 1993 does not constitute good reason.

In the event we, or any surviving or acquiring corporation, terminate Mr. Albury's employment without cause or he terminates his employment for good reason within 12 months following the effective date of a "change in control", as defined in the 2018 Plan, then Mr. Albury will be eligible to receive, subject to his compliance with certain obligations, the same severance benefits on the same conditions as if he had been terminated by us without cause; provided, however, that (a) the Albury Severance Period shall be increased to nine months, (b) Mr. Albury's annual bonus shall instead be paid at the target amount for the Albury Severance Period, and (c) in the event that Mr. Albury's outstanding equity as of the closing of the change in control is assumed or continued (in accordance with its terms) by the surviving entity in a change in control, then 100% of the unvested portion of such equity shall become vested.

Outstanding Equity Awards at December 31, 2017

The following table sets forth information concerning outstanding equity awards at December 31, 2017 for each of our named executive officers, all of which were granted under the 2004 Plan:

	Option Awards			
Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($/share)	Option Expiration Date
Neal Fowler	1,000,000[1]	—	0.50	05/13/2018
	1,058,201	—	0.11	11/23/2020
	405,023	—	0.23	11/21/2023
	825,000	495,000[2]	0.28	05/21/2025
Timothy Albury	129,815	—	0.23	11/21/2023
	52,669	—	0.23	11/21/2023
	155,833	174,167[2]	0.28	05/21/2025
Robert Lippe	250,000	296,875[3]	0.28	08/27/2025

(1) Exercised on May 10, 2018 on a net basis, resulting in 257,057 shares of our common stock being issued to Mr. Fowler.

(2) 2.084% of the shares underlying the option vest monthly commencing August 1, 2015, becoming fully vested on July 1, 2019.

(3) 25% of the shares underlying the options vested on July 13, 2016, with 2.084% of the shares vesting monthly thereafter, becoming fully vested on July 13, 2019.

2018 Equity Grants

On March 7, 2018, we granted incentive stock options to purchase shares of our common stock under the 2016 Plan, with an exercise price equal to $0.55 per share, to each of the following officers: (i) Neal Fowler, our Chief Executive Officer, for 3,900,000 shares; (ii) Kevin Gordon, our President and Chief Financial Officer, for 2,146,767 shares; (iii) Robert Lippe, our Chief Operations Officer, for 735,000 shares; (iv) Dr. Robert Roscigno, our Senior Vice President, Product Development, for 600,000 shares; (v) Dr. Benjamin Maynor, our Senior Vice President, Research and Development, for 700,000 shares; (vi) Jason Adair, our Vice President, Business Development and Strategy, for 350,000 shares; and (vii) Timothy Albury, our Senior Vice President, Chief Accounting Officer, for 514,000 shares. Such options, with the exception of the options granted to Mr. Albury, vest as to 25% on March 7, 2019, and, as to the remainder, in 36 equal monthly installments on the first day of each month thereafter. The options granted to Mr. Albury vest as to 25% on March 7, 2019, and, as to the remainder, in 12 equal monthly installments on the first day of each month thereafter.

On March 7, 2018, we granted Kevin Gordon a restricted stock unit award of 2,146,767 shares. The restricted stock unit award vests as to 25% of the shares underlying the award on January 22, 2019, and, as to the remainder, in 36 equal monthly installments on the first day of each month thereafter, subject to Mr. Gordon's continued employment.

Equity and Other Incentive Compensation Plans

Employee Bonus Plan

In connection with the offering, we will adopt an employee bonus plan, or the Employee Bonus Plan, under which eligible employees will be entitled to receive an annual cash bonus determined by the achievement of certain company and individual performance indicators that have been approved by our Compensation Committee and our Board for the relevant financial year.

All regular full-time and part-time employees who are employed by us on the date the bonus payout is made are eligible to receive a cash bonus pursuant to and on the terms of our Employee Bonus Plan. Employees who do not work a full financial year may be paid bonuses on a pro rata basis, at the discretion of our management. All bonus eligibility is subject to the determination of our management.

The determination of the bonus payable to any eligible employee is solely and completely within the discretion of our management, and there is no obligation on our management to award any bonus to any employee. Our Compensation Committee will approve the payment of any management-recommended bonus awards.

Severance Plan

On , 2018, we adopted an Executive Severance and Change in Control Plan, or the Severance Plan, under which eligible employees are entitled to receive certain severance benefits, including a lump sum payment, upon the termination of their employment with us, if such termination was (a) initiated by us and not for "cause" or "disability", each as defined under the Severance Plan, or because of death or (b) initiated by the employee for "good reason", as defined under the Severance Plan, or an Involuntary Termination.

Under the Severance Plan, in the event of an Involuntary Termination, we will pay and provide the following to the eligible employee within 60 days following such termination: an amount equal to the employee's annual salary as of the termination date multiplied by the applicable severance multiple, an amount equal to the excess of COBRA coverage over the monthly premium rate for our active employees multiplied by the applicable healthcare assistance multiple within 60 days following such termination, and post-termination nonqualified deferred compensation benefits, equity awards and employee welfare benefits pursuant to the terms of the respective plans and policies under which such benefits are provided, if any. In connection with an Involuntary Termination following a "change in control", as defined under the Severance Plan, we will pay and provide the following to the eligible employee: an amount equal to the sum of the employee's annual salary and target annual incentive (such amounts shall be determined as of the date of termination) multiplied by the applicable severance multiple within 60 days following such termination, an amount equal to the excess of COBRA coverage over the monthly premium rate for our active employees multiplied by the applicable healthcare assistance multiple within 60 days following such termination, and post-termination nonqualified deferred compensation benefits, equity awards and employee welfare benefits pursuant to the terms of the respective plans and policies under which such benefits are provided, if any. As a condition to the receipt of certain of these benefits under the Severance Plan, the employee must execute and not revoke a valid release of claims in the form provided by us.

The severance multiple and healthcare assistance multiple under the Severance Plan is are follows: six months for a termination date prior to or absent a change in control and nine months for a termination date during the two-year period following a change in control.

Generally, employees holding a position of vice president or a more senior position are eligible to be selected by our Compensation Committee to participate in the Severance Plan, except that an individual who is (a) party to an employment agreement with us that provides for payments upon his termination of employment, whether before or after a change in control, or (b) entitled to "deferred compensation" under Section 409A of the Code payable in installments shall not be eligible.

Stock Option Plan (2004)

The 2004 Plan was approved by our Board and our stockholders on November 6, 2004 and November 9, 2004, respectively. The 2004 Plan was most recently amended in June 2015 with the approval of both our Board and our stockholders. Under the 2004 Plan, we have reserved for issuance an aggregate of 9,394,365 shares of our common stock. The number of shares of common stock reserved for issuance is subject to adjustment in the event of any stock dividend, stock split, reverse stock split, combination, reclassification or other similar change in our capital structure.

The shares of common stock underlying awards that expire or are terminated or cancelled without having been fully exercised under the 2004 Plan are added back to the shares of common stock available for issuance under the 2004 Plan.

Our Board has acted as administrator of the 2004 Plan. The administrator has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, and to determine the specific terms and conditions of each award, subject to the provisions of the 2004 Plan. Persons eligible to participate in the 2004 Plan are our employees, officers, directors, consultants and advisors as selected from time to time by the administrator in its discretion.

The 2004 Plan permits the granting of (1) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code, or ISOs, and (2) non-statutory stock options, or NSOs. Subject to certain exceptions set forth therein, the per share option exercise price of each option will be determined by the administrator but may not be less than 100% of the fair market value of the common stock on the date of grant, provided that the per share option exercise price of each option granted to an optionee that owns more than 10% of the common stock may not be less than 110% of the fair market value of the common stock on the date of grant. The term of each option will be fixed by the administrator. The administrator will determine at what time or times each option may be exercised.

The 2004 Plan provides that upon the occurrence of a "Transfer of Control," as defined in the 2004 Plan, except as otherwise provided in a particular option agreement, any unexercisable portion of an outstanding option under the 2004 Plan that would have otherwise become exercisable within 12 months following the effective time of the Transfer of Control shall become immediately exercisable as of a date prior to the Transfer of Control, which date shall be determined by the Board. Upon the occurrence of a Transfer of Control, each outstanding option under the 2004 Plan, to the extent not exercised prior to the Transfer of Control, shall terminate as of the effective time of the Transfer of Control, unless such option is assumed by the successor corporation (or parent thereof) or replaced with a comparable option to purchase shares of the common stock of the successor corporation (or parent thereof).

The Board may amend, suspend or terminate the 2004 Plan or any portion thereof at any time, subject to stockholder approval where such approval is required by applicable law. The Board may also amend, modify or terminate any outstanding option award, provided that no amendment to an award may adversely affect a participant's rights without his or her consent, unless such amendment is required to enable an option designated as an incentive stock option to qualify as an incentive stock option.

All options underlying the 2004 Plan were required to be granted within 10 years from November 6, 2004, the date the 2004 Plan was adopted by the Board. On November 6, 2014, the expiration date of the 2004 Plan was extended to November 6, 2016. As of March 31, 2018, options to purchase 9,034,615 shares of common stock were outstanding under the 2004 Plan. No future grants will be made under the 2004 Plan.

2016 Equity Incentive Plan

The 2016 Plan was adopted by the Board on May 18, 2016 and our stockholders on August 10, 2016 to succeed the 2004 Plan. The 2016 Plan was most recently amended on February 2, 2018. As a result, all options granted under the 2004 Plan remained subject to the terms of the 2004 Plan, but any shares of common stock that otherwise remained available for future grants under the 2004 Plan as of the effective date of the 2016 Plan ceased to be available under the 2004 Plan at such time.

Under the 2016 Plan, we have reserved for issuance an aggregate of 22,811,308 shares of our common stock. The number of shares of common stock reserved for issuance is subject to adjustment in the event of a capitalization event in which we are not paid any consideration including a merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in ASC 718.

The shares of common stock underlying awards that expire or are terminated, surrendered or cancelled without having been fully exercised or are forfeited or repurchased or result in shares of common stock not being issued under the 2016 Plan are added back to the shares of common stock available for issuance under the 2016 Plan. In addition, shares of common stock tendered to us by a participant to exercise an award are added back to the shares available for grant under the 2016 Plan.

Our Board has acted as administrator of the 2016 Plan. The administrator has full power to, among other things, select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to accelerate the time at which a stock award may be exercised or vest, to amend the 2016 Plan and to determine the specific terms and conditions of each award, subject to the provisions of the 2016 Plan. Persons eligible to participate in the 2016 Plan are our employees, directors and consultants.

The 2016 Plan permits the granting of (1) options to purchase common stock intended to qualify as ISOs, (2) NSOs, (3) stock appreciation rights, (4) restricted stock awards, (5) restricted stock unit awards and (6) other stock awards. The per share option exercise price of each option will be determined by the administrator but may not be less than 100% of the fair market value of the common stock on the date of grant, provided that the per share option exercise price of each option granted to an optionee that owns more than 10% of the common stock may not be less than 110% of the fair market value of the common stock on the date of grant and such option grant may not be exercisable after the ten year anniversary of the date of grant. The term of each option will be fixed by the administrator. The administrator will determine at what time or times each option may be exercised.

The 2016 Plan provides that upon the occurrence of a "Corporate Transaction," as defined in the 2016 Plan, our Board may take one or more of the following actions as to some or all awards outstanding under the 2016 Plan: (i) provide that outstanding options awards will be assumed or substituted by the acquiring or successor corporation, (ii) arrange for the assignment of any reacquisition or repurchase rights held by us in respect of common stock issued pursuant to the stock award to the surviving corporation or acquiring corporation, (iii) accelerate the vesting, in whole or in part, of the stock award to a date prior to the effective time of such Corporate Transaction, (iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us with respect to the stock award, (v) cancel or arrange for the cancellation of the stock award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration as the Board, in its sole discretion, may consider appropriate, or without the payment of consideration or (vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the participant would have received upon the exercise of the stock award immediately prior to the effective time of the Corporate Transaction, over (B) any exercise price payable by such holder in connection with such exercise.

The Board may amend, suspend or terminate the 2016 Plan at any time, subject to stockholder approval where such approval is required by applicable law. Board may also amend, modify or terminate any outstanding award, provided that no amendment to an award may adversely affect a participant's rights without his or her consent.

Unless terminated by the Board, the 2016 Plan will terminate automatically on May 17, 2026. No stock awards may be granted under the 2016 Plan while the 2016 Plan is suspended or after it is terminated.

As of March 31, 2018, options to purchase 14,749,384 shares of common stock were outstanding under the 2016 Plan and 2,146,767 restricted stock units were outstanding under the 2016 Plan. Our Board has determined not to make any further awards under the 2016 Plan following the closing of this offering, at which time the 2018 Plan will become effective.

2018 Long-Term Incentive Plan

The Liquidia Technologies, Inc. 2018 Long-Term Incentive Plan, or the 2018 Plan, was approved by our Board on , 2018 and our stockholders on , 2018 and will become effective as of the date of the completion of this offering, or the Effective Date. No "Awards", as defined below, will be made under the 2004 Plan or the 2016 Plan on or after the Effective Date.

The 2018 Plan is designed to:

- promote the long-term financial interests and growth of our company and its subsidiaries by attracting and retaining directors and employees, which include management as well as other personnel;
- motivate management by means of growth-related incentives to achieve long-range goals; and
- further the alignment of the interests of participants and those of our stockholders, through opportunities for increased stock or stock-based ownership in our company.

The 2018 Plan will remain in effect, subject to the right of our Board or our Compensation Committee to amend or terminate the 2018 Plan at any time, until the earlier of (a) the earliest date as of which all Awards granted under the 2018 Plan have been satisfied in full or terminated and no shares of common stock approved for issuance under the 2018 Plan remain available to be granted under new Awards, or (b) . No Awards will be granted under the 2018 Plan after such termination date. Subject to other applicable provisions of the 2018 Plan, all Awards made under the 2018 Plan on or before , or such earlier termination of the 2018 Plan, shall remain in effect until such Awards have been satisfied or terminated in accordance with the 2018 Plan and the terms of such Awards.

Participation in the 2018 Plan

All of our officers, non-employee directors, employees and consultants are eligible to participate in the 2018 Plan.

Participation by Non-Employee Directors

Although our non-employee directors, including our independent directors, are not involved in the day-to-day running of our operations, they play an important role in furthering our business interests by contributing their experience and expertise. In particular, a number of our independent directors have substantial experience and expertise in pharmaceutical research and development and play an important role in helping us shape our business strategy. It is crucial for us to be able to attract, retain and incentivize such individuals.

It may not always be possible to quantify the services and contributions of our non-employee directors to our company, and accordingly, it may not always be possible to compensate them fully or appropriately by increasing their directors' fees or other cash payments. To that end, participation by non-employee directors in the 2018 Plan will allow us to acknowledge and reward their services and contributions to our company. In addition, we believe that opportunities for increased stock or stock-based ownership in our company will further align the interests of our non-employee directors with the interests of our stockholders.

Administration Plan

The 2018 Plan will be administered by the "Administrator", as defined below, provided that no director shall participate in any deliberation or decision in respect of any stock option, stock appreciation right, stock award, stock unit, performance share, performance unit and/or other stock-based award, each, an Award, and collectively, the Awards, to be granted to him or held by him.

For the purposes of the 2018 Plan, "Administrator" means our Compensation Committee, or such other committee(s) of director(s) duly appointed by our Board or our Compensation Committee to administer the 2018 Plan or delegated limited authority to perform administrative actions under the 2018 Plan, and having such powers as shall be specified by our Board or our Compensation Committee, provided, however, that at any time our Board may serve as the Administrator in lieu of or in addition to our Compensation Committee or such other committee(s) of director(s) to whom administrative authority has been delegated. With respect to any Award to which Section 16 of the Exchange Act applies, the Administrator shall consist of either our Board or a committee of our Board, which committee shall consist of three or more directors, each of whom is intended to be, to the extent required by Rule 16b-3 of the Exchange Act, a "non-employee director" as defined in Rule 16b-3 of the Exchange Act and an "independent director" to the extent required by the Nasdaq listing rules. Any member of the Administrator who does not meet the foregoing requirements shall abstain from any decision regarding an Award and shall not be considered a member of the Administrator to the extent required to comply with Rule 16b-3 of the Exchange Act.

As of , 2018, the Administrator is the Compensation Committee.

The Administrator has the authority, in its sole and absolute discretion, to grant Awards under the 2018 Plan to eligible individuals, and to take all other actions necessary or desirable to carry out the purpose and intent of the 2018 Plan. Further, the Administrator has the authority, in its sole and absolute discretion, subject to the terms and conditions of the 2018 Plan, to, among other things:

(a) determine the eligible individuals to whom, and the time or times at which, Awards shall be granted;

(b) determine the type of Awards to be granted to any eligible individual;

(c) determine the number of shares of common stock to be covered by or used for reference purposes for each Award or the value to be transferred pursuant to any Award; and

(d) determine the terms, conditions and restrictions applicable to each Award and any shares of common stock acquired pursuant thereto, including, without limitation, (i) the purchase price of any shares of common stock, (ii) the method of payment for shares of common stock purchased pursuant to any Award, (iii) the method for satisfying any tax withholding obligation arising in connection with any Award, including by the withholding or delivery of shares of common stock, (iv) the timing, terms and conditions of the exercisability, vesting or payout of any Award or any shares of common stock acquired pursuant thereto, (v) the performance goals applicable to any Award and the extent to which such performance goals have been attained, (vi) the time of the expiration of an Award, (vii) the effect of a participant's Termination of Service, as defined in the 2018 Plan, on any of the foregoing and (viii) all other terms, conditions and restrictions applicable to any Award or shares of common stock acquired pursuant thereto as the Administrator considers to be appropriate and not inconsistent with the terms of the 2018 Plan.

Size

A total of shares of our common stock will be initially authorized and reserved for issuance under the 2018 Plan. This reserve will automatically increase on January 1, 2019 and each subsequent anniversary through 2028, by an amount equal to the smaller of (a) 4% of the number of shares of common stock issued and outstanding on the immediately preceding December 31, or (b) an amount determined by the Board. This reserve will not be increased to include any shares issuable upon exercise of options granted under our 2016 Plan that expire or terminate without having been exercised in full.

Appropriate adjustments will be made in the number of authorized shares and other numerical limits in the Equity Plan and in outstanding awards to prevent dilution or enlargement of participants' rights in the event of a stock split or other change in our capital structure. Shares subject to awards which expire or are cancelled or forfeited will again become available for issuance under the Equity Plan.

Subject to adjustment as provided in the provision of the 2018 Plan pertaining to the occurrence of certain corporate transactions, the maximum number of shares of common stock that may be issued pursuant to stock options granted under the 2018 Plan that are intended to qualify as ISOs is .

Maximum Entitlements

The Administrator may establish compensation for directors who are not employees of our company or any of our Affiliates, as defined in the 2018 Plan, or the Non-Employee Directors, from time to time, provided that the sum of any cash compensation and the grant date fair value of Awards granted under the 2018 Plan to a non-employee director as compensation for services as a non-employee director during any calendar year may not exceed $500,000 for an annual grant, provided however that in a non-employee's director first year of service, compensation for services may not exceed $1,000,000. The Administrator may make exceptions to this limit for individual non-employee directors in extraordinary circumstances, as the Administrator may determine in its discretion, provided that the non-employee director receiving such additional compensation may not participate in the decision to award such compensation or in other compensation decisions involving non-employee director.

Awards

Awards may be granted individually or in tandem with other types of Awards, concurrently with or with respect to outstanding Awards. Participants are not required to pay for the application or acceptance of Awards.

Stock Options. The Administrator may, from time to time, grant to eligible individuals Awards of stock options.

Such stock options shall be exercisable at such time or times and subject to such terms and conditions as shall be determined by the Administrator; provided, however, that, Awards of stock options may not have a term in excess of ten years unless otherwise required by applicable law.

The exercise price per share subject to a stock option granted under the 2018 Plan shall not be less than the fair market value of one share on the date of grant of the stock option, except as provided under applicable law or with respect to stock options that are granted in substitution of similar types of awards of a company acquired by our company or with which our company combines (whether in connection with a corporate transaction, such as a merger, combination, consolidation or acquisition of property or stock, or otherwise) to preserve the intrinsic value of such awards.

Except as provided in the applicable award agreement or otherwise determined by the Administrator, to the extent stock options are not vested and exercisable, a participant's stock options shall be forfeited upon his Termination of Service.

Stock Appreciation Rights. The Administrator may, from time to time, grant to eligible individuals Awards of stock appreciation rights. A stock appreciation right entitles the participant to receive, subject to the provisions of the 2018 Plan and the applicable award agreement, a payment having an aggregate value equal to the product of (a) the excess of (i) the fair market value on the exercise date of one share over (ii) the base price per share specified in the award agreement, and (b) the number of shares of common stock specified by the stock appreciation right, or portion thereof, which is exercised. The base price per share specified in the applicable award agreement shall not be less than the lower of the fair market value on the date of grant or the exercise price of any tandem stock option to which the stock appreciation right is related, or with respect to stock appreciation rights that are granted in substitution of similar types of awards of a company acquired by our company or with which our company combines (whether in connection with a corporate transaction, such as a merger, combination, consolidation or acquisition of property or stock, or otherwise) such base price as is necessary to preserve the intrinsic value of such awards.

Stock appreciation rights shall be exercisable at such time or times and subject to such terms and conditions as shall be determined by the Administrator; provided, however, that stock appreciation rights granted under the 2018 Plan may not have a term in excess of ten years unless otherwise required by applicable law.

Except as provided in the applicable award agreement or otherwise determined by the Administrator, to the extent stock appreciation rights are not vested and exercisable, a participant's stock appreciation rights shall be forfeited upon his Termination of Service.

Stock Awards. The Administrator may, from time to time, grant to eligible individuals Awards of unrestricted stock or restricted stock, collectively, Stock Awards. For the purposes of the 2018 Plan, "Restricted Stock" means an Award of shares of common stock that may be subject to certain transferability and other restrictions and to a risk of forfeiture, including by reason of not satisfying certain performance goals.

Restricted Stock shall be subject to such vesting, restrictions on transferability and other restrictions, if any, and risk of forfeiture as the Administrator may impose at the date of grant or thereafter. The period during which such vesting or transferability and other restrictions and/or risk of forfeiture applies, or the Restriction Period, may lapse under such circumstances, including without limitation upon the attainment of performance goals, in such instalments, or otherwise, as the Administrator may determine. Subject to the provisions of the 2018 Plan and the applicable award agreement, during the Restriction Period, the Participant shall not be permitted to sell, assign, transfer, pledge or otherwise encumber Restricted Stock.

Except to the extent restricted under the applicable award agreement, a participant granted Restricted Stock shall have all of the rights of a stockholder including, without limitation, the right to vote. Cash dividends declared payable on of common stock shall be paid, with respect to outstanding Restricted Stock, either as soon as practicable following the dividend payment date or deferred for payment to such later date as determined by the Administrator, and shall be paid in cash or as unrestricted shares of common stock having a fair market value equal to the amount of such dividends or may be reinvested in additional shares

of Restricted Stock as determined by the Administrator; provided, however, that dividends declared payable on Restricted Stock granted as a Performance Award shall be held by our company and made subject to forfeiture at least until achievement of the applicable performance goal relating to such shares of Restricted Stock. Shares of common stock distributed in connection with a stock split or stock dividend, and other property distributed as a dividend, shall be subject to restrictions and a risk of forfeiture to the same extent as the Restricted Stock with respect to which such shares of common stock or other property have been distributed.

Except as provided in the applicable award agreement, upon termination of service during the applicable Restriction Period, Restricted Stock and any accrued but unpaid dividends that are at that time subject to restrictions shall be forfeited; provided that the Administrator may provide, by rule or regulation or in any Award Agreement, or may determine in any individual case, that restrictions or forfeiture conditions relating to Restricted Stock will be waived in whole or in part in the event of terminations resulting from specified causes, and the Administrator may in other cases waive in whole or in part the forfeiture of Restricted Stock.

Stock Units. The Administrator may, from time to time, grant to eligible individuals Awards of unrestricted stock units or Restricted Stock Units. For the purposes of the 2018 Plan, "Restricted Stock Unit" means a right granted to a participant to receive shares of common stock or cash at the end of a specified deferral period, which right may be conditioned on the satisfaction of certain requirements, including the satisfaction of certain performance goals.

Restricted Stock Units shall be subject to such vesting, risk of forfeiture and/or payment provisions as the Administrator may impose at the date of grant. The Restriction Period to which such vesting and/or risk of forfeiture applies may lapse under such circumstances, including without limitation upon the attainment of performance goals, in such instalments, or otherwise, as the Administrator may determine.

Until shares of common stock are issued to the participant in settlement of stock units, the participant shall not have any rights of a stockholder with respect to the stock units or the shares of common stock issuable thereunder. The Administrator may grant the participant the right to dividend equivalents on stock units, on a current, reinvested and/or restricted basis, subject to such terms as the Administrator may determine; provided, however, that dividend equivalents declared payable on stock units granted as a Performance Award shall rather than be paid on a current basis, be accrued and made subject to forfeiture at least until achievement of the applicable performance goal relating to such stock units.

Other Stock-Based Awards. The Administrator may, from time to time, grant to eligible individuals Awards in the form of Other Stock-Based Awards. For the purposes of the 2018 Plan, "Other Stock-Based Award" means an Award of shares of common stock or any other Award that is valued in whole or in part by reference to, or that is otherwise based upon, shares of common stock, including without limitation dividend equivalents and convertible debentures.

Adjustment Events

In the event of a merger, consolidation, rights offering, statutory share exchange or similar event affecting our company, each, a Corporate Event, or a stock dividend, stock split, reverse stock split, separation, spinoff, reorganization, extraordinary dividend of cash or other property, share combination or subdivision or recapitalization or similar event affecting the capital structure of our company, each, a Share Change, that occurs at any time after the Effective Date (including any such Corporate Event or Share Change that occurs after such adoption and coincident with or prior to the Effective Date), the Administrator shall make equitable and appropriate substitutions or proportionate adjustments to (a) the aggregate number and kind of shares of common stock or other securities on which Awards under the 2018 Plan may be granted to eligible individuals, (b) the maximum number of shares of common stock or other securities with respect to which Awards may be granted during any one calendar year to any individual, (c) the maximum number of shares of common stock or other securities that may be issued with respect to ISOs granted under the 2018

Plan, (d) the number of shares of common stock or other securities covered by each outstanding Award and the exercise price, base price or other price per share, if any, and other relevant terms of each outstanding Award and (e) all other numerical limitations relating to Awards, whether contained in the 2018 Plan or in award agreements; provided, however, that any fractional shares resulting from any such adjustment shall be eliminated and that no such adjustment shall be made if as a result, the participant receives a benefit that a stockholder does not receive and any adjustment (except in relation to a capitalization issue) must be confirmed in writing by the auditors of our company (acting as experts and not as arbitrators) to be, in their opinion, fair and reasonable.

In the case of Corporate Events, the Administrator may make such other adjustments to outstanding Awards as it determines to be appropriate and desirable, which adjustments may include, without limitation, (a) the cancellation of outstanding Awards in exchange for payments of cash, securities or other property or a combination thereof having an aggregate value equal to the value of such Awards, as determined by the Administrator in its sole discretion (it being understood that in the case of a Corporate Event with respect to which stockholders receive consideration other than publicly traded equity securities of the ultimate surviving entity, any such determination by the Administrator that the value of a stock option or stock appreciation right shall for this purpose be deemed to equal the excess, if any, of the value of the consideration being paid for each share of common stock pursuant to such Corporate Event over the exercise price or base price of such stock option or stock appreciation right shall conclusively be deemed valid and that any stock option or stock appreciation right may be cancelled for no consideration upon a Corporate Event if its exercise price or base price equals or exceeds the value of the consideration being paid for each share of common stock pursuant to such Corporate Event), (b) the substitution of securities or other property (including, without limitation, cash or other securities of our company and securities of entities other than our company) for the shares of common stock subject to outstanding Awards and (c) the substitution of equivalent awards, as determined in the sole discretion of the Administrator, of the surviving or successor entity or a parent thereof; provided, however, that no such adjustment shall be made if as a result, the participant receives a benefit that a stockholder does not receive and any adjustment (except in relation to a capitalization issue) must be confirmed in writing by the auditors of our company (acting as experts and not as arbitrators) to be, in their opinion, fair and reasonable.

Change in Control

In the event of a change in control, as defined in the 2018 Plan, of our company, outstanding awards will terminate upon the effective time of the change in control unless provision is made for the continuation, assumption or substitution of awards by the surviving or successor entity or its parent. Unless an award agreement says otherwise, the following will occur with respect to awards that terminate in connection with a change in control of our company:

- stock options and stock appreciation rights will become fully exercisable and holders of these awards will be permitted immediately before the change in control to exercise them;
- restricted stock and stock units with time-based vesting (i.e., not subject to achievement of performance goals) will become fully vested immediately before the change in control, and stock units will be settled as promptly as is practicable in accordance with applicable law; and
- performance shares and units that vest based on the achievement of performance goals will vest as if the performance goal for the unexpired performance period had been achieved at the target level; and the performance units will be settled as promptly as is practicable in accordance with applicable law.

2018 Plan Amendments

Our Board or our Compensation Committee may amend, alter or discontinue the 2018 Plan, but no amendment, alteration or discontinuation shall be made which would materially impair the rights of a participant with respect to a previously granted Award without such participant's consent, except such an amendment made to comply with applicable law or rule of any securities exchange or market on which our

shares of common stock are listed or admitted for trading or to prevent adverse tax or accounting consequences to our company or the participant.

Our Board or our Compensation Committee may, at any time, modify and/or alter any or all of the provisions of the 2018 Plan, except that no modification or alternation of any provision shall be made to the advantage of participants except with the prior approval of stockholders a stockholders' meeting to the extent such amendment requires stockholders' approval under the applicable provisions of the applicable listing exchange rule, including but not limited to (a) expanding the eligibility for participation in the 2018 Plan, (b) increasing the number of shares of common stock which may be issued under the 2018 Plan or to a participant, (c) eliminating or modifying the prohibition set forth in Section 7(f) of the 2018 Plan on repricing of stock options and stock appreciation rights, (d) lengthening the maximum term or lowering the minimum exercise price or base price permitted for stock options and stock appreciation rights, (e) modifying the prohibition on the issuance of reload or replenishment options or (f) materially increasing the benefits accruing to participants under the 2018 Plan.

Amendment of Awards

The Administrator may unilaterally amend the terms of any Award theretofore granted, but no such amendment shall materially impair the rights of any participant with respect to an Award without the participant's consent, except such an amendment made to cause the 2018 Plan or Awards thereunder to comply with applicable law, applicable rule of any securities exchange on which our shares of common stock are listed or admitted for trading, or to prevent adverse tax or accounting consequences for the participant or our company or any of our affiliates. For purposes of the foregoing sentence, an amendment to an Award that results in a change in the tax consequences of the Award to the participant shall not be considered to be a material impairment of the rights of the participant and shall not require the participant's consent.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2015, to which we have been a party, in which the amount involved exceeds or will exceed $120,000 and in which any of our directors, executive officers or holders of more than 5% of our capital stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest.

Series D Preferred Stock Financing

On February 2, 2018, pursuant to a Series D Preferred Stock Purchase Agreement, we issued and sold, at a price per share equal to $0.59808, shares of our Series D preferred stock to Canaan VIII L.P., or Canaan, Morningside Venture Investments Limited, or Morningside, New Enterprise Associates, or NEA, Xeraya LT Ltd, or Xeraya, and Robert Lippe, our Chief Operations Officer. The following table sets forth the aggregate number of shares of Series D preferred stock issued to our related parties in this offering:

		Aggregate Purchase Price	
Participants	Shares of Series D Preferred Stock	Cash ($)	Conversion of Promissory Note ($)
Canaan[1]	15,887,155	7,500,000	2,001,790
Morningside[2]	1,849,490	—	1,106,143
NEA[3]	16,502,833	7,500,000	2,370,015
Xeraya[4]	17,445,780	—	10,433,973
Robert Lippe	91,814	—	54,912

(1) Dr. Bloch, a member of our Board, is a General Partner at Canaan, which is a beneficial holder of more than 5% of our capital stock.

(2) Dr. Cheng, a member of our Board, is an Investment Partner at Morningside Technology Advisory, LLC, an affiliate of Morningside, which is a beneficial holder of more than 5% of our capital stock.

(3) Mr. Mathers, a member of our Board, is a partner at New Enterprise Associates, Inc., an affiliate of NEA, which is a beneficial holder of more than 5% of our capital stock.

(4) Mr. Rushton, a member of our Board, is a partner at Xeraya Capital Labuan Ltd., an affiliate of Xeraya, which is a beneficial holder of more than 5% of our capital stock.

Issuance of Unsecured Subordinated Convertible Promissory Notes and Warrants

On January 9, 2017, pursuant to a Note Purchase Agreement, as amended, we issued unsecured subordinated convertible promissory notes, or the Insider Notes, each accruing simple interest at a rate of 8% per year, to Canaan, Morningside, NEA and Robert Lippe in the principal amounts set forth in the following table:

Participants	Principal Amounts of Subordinated Convertible Promissory Notes ($)	Warrants to Purchase Shares of Common Stock[1]
Canaan	1,845,271	687,497
Morningside	1,019,654	379,894
NEA	2,184,704	813,960
Robert Lippe	50,927	18,973

(1) Represents the number of shares of common stock underlying warrants which will be exercisable following the automatic conversion of all outstanding shares of preferred stock, including the Series D preferred stock issued in February 2018, into common stock upon completion of this offering. The exercise price per share underlying the warrants is $0.001.

On July 17, 2017, pursuant to an additional Note Purchase Agreement, or the Xeraya NPA, we issued an unsecured subordinated convertible promissory note to Xeraya in the principal amount of $10 million, or the Xeraya Note, accruing simple interest at a rate of 8% per year. In connection with such agreement, we appointed Jason Rushton, a partner at Xeraya Capital Labuan Ltd, an affiliate of Xeraya, to our Board, effective July 17, 2017.

On February 2, 2018, each of the Insider Notes and the Xeraya Note converted into shares of our Series D preferred stock pursuant to the Series D Preferred Stock Purchase Agreement at the rate of one share for each $0.59808 in principal and accrued interest outstanding under the notes.

Certain Transactions Involving Envisia Therapeutics Inc.

In 2013, we formed Envisia and granted it an exclusive, worldwide, fully paid license to develop therapies using our PRINT technology in specified fields, including ophthalmology, dermatology, articular and otic, or the Envisia License, in exchange for an aggregate of 1,000,000 shares of Envisia common stock. Certain of our significant stockholders purchased shares of Envisia Series A-1 preferred stock in 2013 in a transaction contingent upon the execution of the Envisia License. Each share of preferred stock was initially convertible into one share of common stock. The following table summarizes the ownership of Envisia common and

preferred stock following this transaction, including the relative percentage ownership of the stock on an as-converted basis:

Name	Shares of Common Stock	Shares of Series A Preferred Stock	Aggregate Purchase Price ($)	Ownership Percentage (%)
Liquidia	1,000,000	—	—(1)	11.6
Canaan	—	2,360,739	9,584,600	27.4
Morningside	—	450,936	1,830,800	5.2
NEA	—	2,360,739	9,584,600	27.4
Other stockholders(2)	—	983,484	3,992,968	28.4

(1) We received an aggregate of 1,000,000 shares of Envisia common stock as consideration for the Envisia License.

(2) Consists of Envisia stockholders who were not our related parties.

We understand that Canaan, Morningside and NEA participated in subsequent equity financings with Envisia.

In May 2015, we repurchased the Envisia License with respect to the dermatology and articular fields in exchange for 50,000 shares of the Envisia common stock we held. In March 2017, we repurchased the Envisia License with respect to the otic field, along with other intellectual property rights, in exchange for 75,000 shares of the Envisia common stock we held.

From November 2013 to June 2016, we funded expenses of Envisia related to its facilities, intellectual property and manufacturing under a shared services agreement, totaling $873,474, $614,893 and $105,623 for the years ended December 31, 2015, 2016 and 2017, respectively. We also provided management services worth $1.5 million to Envisia during the year ended December 31, 2015. In May 2016, we converted Envisia's unpaid expenses under the shared services agreement into a promissory note in the principal amount of $985,594, which carried interest at an annual rate of 5.0% and had a stated maturity date of December 31, 2016. Envisia repaid the promissory note in full in August 2016. In October 2017, we entered into a mutual release agreement with Envisia related to intellectual property services under our shared services agreement, pursuant to which we waived $121,473 in fees owed by Envisia.

In October 2017, Aerie purchased substantially all of the assets of Envisia for $24.8 million, comprised of $10.5 million in cash and 263,146 shares of Aerie common stock valued at $14.3 million. In addition, Aerie agreed to make potential milestone payments to Envisia of up to an aggregate of $45.0 million, contingent upon achievement of certain product regulatory approvals. To the extent funds are to be distributed by Envisia, such distributions will be first allocated to the Envisia preferred stockholders in light of their liquidation preferences. After such liquidation preferences are satisfied, we do not currently expect that we will receive any portion of the proceeds of this transaction as a holder of Envisia common stock. We are not aware of any plans for distributions to Envisia's stockholders.

Investors' Rights Agreement

We have entered into the Seventh Amended and Restated Investors' Rights Agreement, or the IRA, dated as of February 2, 2018. The IRA contains information rights and registration rights, among other things, for certain holders of our capital stock. Pursuant to the terms of the agreement, each of these rights, with the exception of the registration rights, will terminate upon the closing of this offering, except for the registration rights as more fully described below in "Description of Capital Stock — Registration Rights."

Indemnification Agreements and Directors' and Officers' Liability Insurance

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us to indemnify each director and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, penalties fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.

Participation in this Offering

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The underwriters will receive the same underwriting discount on these shares as they will on any other shares sold to the public in this offering.

Policies and Procedures for Related Party Transactions

Our Board has adopted a written related person transaction policy, to be effective upon the consummation of this offering, setting forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds $120,000 and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our Audit Committee, but only those independent directors who are disinterested, will be tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction with an unrelated third party and the extent of the related person's interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of June 15, 2018, and as adjusted to reflect the sale of our common stock offered by us in this offering, for:

- each of our named executive officers;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each person, or group of affiliated persons, known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock.

We have determined beneficial ownership in accordance with the rules of the SEC, which generally means that a person has beneficial ownership of a security if he or she possesses sole or shared voting or investment power of that security, including options or warrants that are currently exercisable or exercisable within 60 days of June 15, 2018. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, shares of common stock subject to options, convertible securities or other rights, held by such person that are currently exercisable or will become exercisable within 60 days of June 15, 2018, are considered outstanding. We did not, however, deem such shares outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, to our knowledge, the persons and entities named in the table below have sole voting and sole investment power with respect to all shares that they beneficially own, subject to community property laws where applicable. The information in the table below does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Sections 13(d) and 13(g) of the Securities Act.

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The underwriters will receive the same underwriting discount on these shares as they will on any other shares sold to the public in this offering. The table below does not give effect to any potential purchases by such stockholders in this offering.

We have based our calculation of the percentage of beneficial ownership prior to this offering on 178,131,347 shares of common stock outstanding as of June 15, 2018, after giving effect to the automatic conversion of all of our outstanding preferred stock, including the Series D preferred stock issued in February 2018, and non-voting common stock into common stock upon the closing of this offering.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Liquidia Technologies, Inc., 419 Davis Drive, Suite 100, Morrisville, North Carolina 27560.

Name of Beneficial Owner	Number of Shares Beneficially Owned Prior to Offering	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering[1]
5% Stockholders:			
New Enterprise Associates 12, Limited Partnership[2]	33,469,253	18.7%	%
Canaan VIII L.P.[3]	31,583,070	17.7%	%
Xeraya LT Ltd[4]	17,445,780	9.8%	%
Bill & Melinda Gates Foundation[5]	13,412,616	7.5%	%
Morningside Venture Investments Limited[6]	9,680,849	5.4%	%
Named Executive Officers and Directors:			
Neal Fowler[7]	3,265,281	1.8%	%
Timothy Albury[8]	895,784	*	*
Robert Lippe[9]	704,537	*	*
Seth Rudnick[10]	823,807	*	*
Stephen Bloch	—	—	—
Edward Mathers	—	—	—
Isaac Cheng	—	—	—
Ralph Snyderman[11]	490,023	*	*
Arthur Kirsch[12]	65,625	*	*
Jason Rushton	—	—	—
Raman Singh	—	—	—
All current executive officers and directors as a group (14 persons)[13]	7,243,361	3.9%	%

* Represents ownership of less than 1.0%.

(1) Assumes no exercise of the underwriters' option to purchase additional shares of common stock.

(2) Consists of (i) 187,121 shares of common stock, (ii) 32,468,172 shares of common stock issuable upon the automatic conversion of outstanding shares of preferred stock held by NEA and NEA Ventures 2006 Limited Partnership, or NEA 2006, an affiliate of NEA, and (iii) 813,960 shares of common stock issuable upon the conversion of an outstanding warrant. The securities held by NEA are indirectly held by (x) NEA Partners 12, Limited Partnership, or NEA Partners 12, the sole general partner of NEA, (y) NEA 12 GP, LLC, or NEA 12 LLC, the sole general partners of NEA Partners 12, and each of the individual managers of NEA 12 LLC. The individual managers of NEA 12 LLC, or the NEA 12 Managers, are M. James Barrett, Peter J. Barris, Forest Baskett, Patrick J. Kerins and Scott D. Sandell. The shares directly held by NEA 2006 are indirectly held by Karen P. Welsh, the general partner of NEA 2006. NEA, NEA Partners 12, NEA 12 LLC and the NEA 12 Managers share voting and dispositive power with regard to our securities directly held by NEA. Karen P. Welsh, the general partner of NEA 2006, has voting and dispositive power with regard to our securities directly held by NEA 2006. All indirect holders of the above referenced securities disclaim beneficial ownership of all applicable securities, except to the extent of their actual pecuniary interest therein. The address of NEA is 1954 Greenspring Drive, Suite 600, Timonium, MD 21093.

(3) Consists of (i) 45,419 shares of common stock, (ii) 30,850,154 shares of common stock issuable upon the automatic conversion of outstanding shares of preferred stock and (iii) 687,497 shares of common stock issuable upon the conversion of an outstanding warrant. Canaan Partners VIII LLC is the general partner of Canaan VIII L.P. and has sole investment and voting power over the shares held by Canaan VIII L.P. Brenton K. Ahrens, John V. Balen, Stephen M. Bloch, Wende S. Hutton, Maha S. Ibrahim, Deepak Kamra, Guy M. Russo and Eric A. Young are the managing members of Canaan Partners VIII LLC. No one individual controls Canaan Partners VIII LLC and, therefore, none of the managing members of Canaan Partners VIII LLC individually has investment or voting power with respect to the shares held by Canaan VIII L.P. Investment and voting decisions with respect to the shares held by Canaan VIII L.P. are made by the managing members of Canaan Partners VIII LLC, collectively. Dr. Bloch, a member of our Board, is a managing member of Canaan Partners VIII LLC.

Neither Dr. Bloch nor the other members or managers of Canaan Partners VIII LLC are deemed to indirectly beneficially own the shares beneficially owned by Canaan. The address of Canaan is 285 Riverside Avenue, Suite 250, Westport, CT 06880.

(4) Consists of 17,445,780 shares of common stock issuable upon the automatic conversion of outstanding shares of Series D preferred stock. All shares are held by Xeraya. Fares Zahir, a director of Xeraya, has sole voting and dispositive power with respect to the shares held by Xeraya. Mr. Zahir disclaims beneficial ownership of the shares held by Xeraya, except to the extent of his pecuniary interest therein, if any. The principal address of Xeraya is Lot 26.03-26.08, Level 26, GTower, No. 199, Jalan Tun Razak, 50400, Kuala Lumpur, Malaysia.

(5) Consists of 13,412,616 shares of common stock issuable upon the automatic conversion of outstanding shares of Series C-1 preferred stock. For purposes of Rule 13d-3 under the Exchange Act, all shares beneficially owned by the Bill & Melinda Gates Foundation may be deemed to be beneficially owned by William H. Gates III and Melinda French Gates as Co-Trustees of the Bill & Melinda Gates Foundation. The principal address of the Bill & Melinda Gates Foundation is 1432 Elliot Avenue West, Seattle, WA 98119.

(6) Consists of (i) 9,300,955 shares of common stock issuable upon the automatic conversion of outstanding shares of preferred stock, and (ii) 379,894 shares of common stock issuable upon the conversion of an outstanding warrant. All shares are held by Morningside. Raymond Tang, Louise Garbarino, Peter Stuart Allenby Edwards and Jill Franklin are directors of Morningside, and may be deemed to have joint voting and dispositive power with respect to the shares held by Morningside. Each of Mr. Tang, Ms. Garbarino, Mr. Edwards and Ms. Franklin disclaim beneficial ownership of the shares held by Morningside, except to the extent of his or her pecuniary interest therein, if any. The address of Morningside is 2nd Floor, Le Prince de Galles, 3-5 Avenue des Citronniers, MC 98000, Monaco.

(7) Consists of (i) 757,057 shares of common stock and (ii) 2,508,224 shares of common stock underlying outstanding options which will have vested within 60 days of June 15, 2018.

(8) Consists of (i) 474,967 shares of common stock and (ii) 420,817 shares of common stock underlying outstanding options which will have vested within 60 days of June 15, 2018.

(9) Consists of (i) 203,125 shares of common stock, (ii) 390,625 shares of common stock underlying an outstanding option which will have vested within 60 days of June 15, 2018, (iii) 18,973 shares of common stock issuable upon the conversion of an outstanding warrant and (iv) 91,814 shares of common stock issuable upon the conversion of outstanding shares of Series D preferred stock.

(10) Consists of (i) an aggregate of 406,250 shares of common stock held by Dr. Rudnick and the Carolyn F. Rudnick, and successors, Trustee Seth A. Rudnick Irrevocable GST Trust u/a 3/1/2014 which is managed by Dr. Rudnick's wife for the benefit of his wife and children, and (ii) 417,557 shares of common stock underlying outstanding options which will have vested within 60 days of June 15, 2018.

(11) Consists of (i) 418,362 shares of common stock and (ii) 71,661 shares of common stock underlying outstanding options which will have vested within 60 days of June 15, 2018.

(12) Consists of 65,625 shares of common stock underlying an outstanding option which will have vested within 60 days of June 15, 2018.

(13) Consists of an aggregate of (i) 2,319,761 shares of common stock, (ii) 4,802,639 shares of common stock underlying outstanding options which will have vested within 60 days of June 15, 2018, (iii) 18,973 shares of common stock issuable upon the conversion of an outstanding warrant, (iv) 10,174 shares of common stock issuable upon the conversion of outstanding shares of non-voting common stock, and (v) 91,814 shares of common stock issuable upon the conversion of outstanding shares of Series D preferred stock, held by eight executive officers and directors.

DESCRIPTION OF CAPITAL STOCK

The following description summarizes important terms of our capital stock. For a complete description, you should refer to our amended and restated certificate of incorporation and amended and restated bylaws, forms of which have been filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant portions of the Delaware General Corporation Law, or the DGCL. References to our amended and restated certificate of incorporation and amended and restated bylaws are to our amended and restated certificate of incorporation and our amended and restated bylaws, respectively, each of which will become effective upon completion of this offering.

General

The following is a summary of our capital stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to the closing of this offering. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, copies of which have been filed as exhibits to the registration statement of which this prospectus forms a part.

Following the closing of this offering, our authorized capital stock will consist of shares of common stock and shares of preferred stock.

Common Stock

As of March 31, 2018, there were 10,122,219 shares of Class A voting common stock outstanding held of record by 82 stockholders; 330,664 shares of Class B non-voting common stock outstanding held of record by nine stockholders; 1,974,430 shares of Series A preferred stock outstanding held of record by 11 stockholders; 1,834,862 shares of Series A-1 preferred stock outstanding held of record by nine stockholders; 4,496,908 shares of Series B preferred stock outstanding held of record by six stockholders; 17,102,578 shares of Series C preferred stock outstanding held of record by ten stockholders, 17,556,178 shares of Series C-1 preferred stock outstanding held of record by three stockholders and 91,147,482 shares of Series D preferred stock outstanding held of record by 31 stockholders. There will be shares of a single class of voting common stock outstanding following the closing of this offering, assuming no exercise of the underwriters' option to purchase additional shares and assuming no exercise of outstanding options and warrants and no delivery of any shares of common stock underlying outstanding restricted stock units. Such number of outstanding shares of common stock also reflects the conversion of all outstanding shares of preferred stock and Class B non-voting common stock into an aggregate of shares of common stock upon the consummation of this offering.

The holders of common stock will be entitled to one vote per share on all matters to be voted upon by the stockholders. The holders of common stock will be entitled to receive ratably those dividends, if any, that may be declared from time to time by our Board out of funds legally available, subject to preferences that may be applicable to preferred stock, if any, then outstanding. In the event of a liquidation, dissolution or winding up of our company, the holders of common stock will be entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. The common stock will have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and non-assessable.

Preferred Stock

Upon the closing of this offering, all outstanding shares of our preferred stock will be converted into an aggregate of shares of our common stock in accordance with our amended and restated certificate of incorporation. After the closing of this offering, there will be no outstanding shares of preferred stock.

Following this conversion and the closing of this offering, our Board will be authorized to issue preferred stock in one or more series, to establish the number of shares to be included in each such series and to fix the designation, powers, preferences and rights of these shares and any qualifications, limitations or restrictions thereof. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of our company without further action by the stockholders and may adversely affect the voting and other rights of the holders of common stock. The issuance of preferred stock with voting and conversion rights may adversely affect the voting power of the holders of common stock, including the loss of voting control to others. At present, we have no plans to issue any of the preferred stock.

Warrants

As of March 31, 2018, we had outstanding warrants to purchase an aggregate of 3,698,128 shares of our Series C-1 preferred stock at an exercise price of $0.001 per share. These warrants will continue to be exercisable for an aggregate of 4,394,914 shares of common stock following the closing of this offering (after the automatic conversion of all outstanding shares of our preferred stock into shares of common stock upon the closing of this offering), at an exercise price of $0.001 per share and expire on December 31, 2026.

Registration Rights

We entered into a Seventh Amended and Restated Investors' Rights Agreement, or IRA, on February 2, 2018 with our largest stockholders. Subject to the terms of this agreement, Holders, as defined in the Seventh Amended and Restated IRA, of shares having registration rights, or Registrable Securities, as defined in the Seventh Amended and Restated IRA, can demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing, until the earliest to occur of: (i) five years following the consummation of this offering, (ii) as to any Holder, such earlier time after this offering at which such Holder can sell all Registrable Securities held by such Holder (together with any affiliate of the Holder with whom such Holder must aggregate its sales under Rule 144) in a single three (3)-month period without registration in compliance with Rule 144 of the Securities Act or (iii) after the consummation of a "Liquidation Event," as defined in the Seventh Amended and Restated IRA.

Demand Registration Rights. At any time after six months following the closing of this offering, subject to certain exceptions set forth in the Seventh Amended and Restated IRA, if the Holders of at least a majority of the common stock issuable or issued upon conversion of the Series C, Series C-1 and Series D preferred stock, or the Required Holders, demand that we file a registration statement covering the registration of Registrable Securities with an anticipated aggregate offering price of at least $10 million, we are required to use all commercially reasonable efforts to effect, as soon as practicable, the registration under the Securities Act of all Registrable Securities requested to be registered.

Form S-3 Registration Rights. If we receive from the Holders of Registrable Securities a written request that we effect a registration on Form S-3, we are required to provide written notice of the proposed registration to all other Holders and use all commercially reasonable efforts to effect the registration of such shares on Form S-3; provided, however, that such Form S-3 registration right is subject to a number of exceptions, such as us being eligible to use Form S-3 at the time such Form S-3 registration request is made, the proposed sale of Registrable Securities to be registered on Form S-3 having an aggregate price to the public (net of any underwriters' discounts or commissions) of at least $5 million and us not being required to file more than two registration statements on Form S-3 in a 12-month period. Furthermore, we

have the ability to delay the filing of a registration statement under specified conditions, such as for a period of time following the effective date of a prior registration statement, if our Board deems it detrimental to us and our stockholders to delay the filing. Such postponements cannot exceed 90 days during any 12-month period and cannot be made more than once in any 12-month period.

Piggyback Registration Rights. If we propose to register any of our securities under the Securities Act in connection with the public offering of such securities, we are required to, at such time, promptly give each Holder party to the Seventh Amended and Restated IRA written notice of such registration. Upon the written request of each such Holder given within 20 days after receipt of our registration notice, we are required to use all commercially reasonable efforts to cause to be registered under the Securities Act all of the Registrable Securities that each holder requests to be registered. In connection with any such offering, we are not required to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed between us and the underwriters selected by us and enter into an underwriting agreement in customary form with such underwriters, and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by us. If marketing factors require a limitation of the number of shares to be underwritten, then the number of shares that may be included in the underwriting will be allocated, first, to us; second, to the Holders other than the Common Holders on a pro rata basis based on the total number of Registrable Securities held by such Holders; third, to the Common Holders on a pro rata basis based on the total number of Registrable Securities held by the Common Holders; and fourth, to any stockholder other than a Holder and/or Common Holder on a pro rata basis.

Expenses of Registration. We will pay all expenses, other than underwriting discounts and commissions, related to any demand, Form S-3 or piggyback registration, including without limitation all registration, filing and qualification fees, printers' and accounting fees, fees and disbursements of counsel for us and the reasonable fees and disbursements of one counsel for the selling Holders, not to exceed $50,000.

Indemnification. The Seventh Amended and Restated IRA contains customary cross-indemnification provisions under which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions or other "Violation," as defined in the Seventh Amended and Restated IRA, in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions or other Violation attributable to them.

Termination of Registration Rights. All registration rights granted under the IRA will terminate on the fifth anniversary of the completion of this offering.

Anti-Takeover Effects of Our Charter and Bylaws and Delaware Law

Some provisions of Delaware law and our amended and restated certificate of incorporation and amended and restated bylaws, to be effective following the closing of this offering, could make the following transactions more difficult:

- § acquisition of our company by means of a tender offer, a proxy contest or otherwise; and
- § removal of our incumbent officers and directors.

These provisions, summarized below, are expected to discourage and prevent coercive takeover practices and inadequate takeover bids. These provisions are designed to encourage persons seeking to acquire control of our company to negotiate first with our board. They are also intended to provide our management with the flexibility to enhance the likelihood of continuity and stability if our board determines that a takeover is not in the best interests of our stockholders. These provisions, however, could have the effect of discouraging attempts to acquire us, which could deprive our stockholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of

discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Election and Removal of Directors

Our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that establish specific procedures for appointing and removing members of our board. Under our amended and restated certificate of incorporation and amended and restated bylaws, to be effective following the closing of this offering, our board will consist of three classes of directors: Class I, Class II and Class III. A nominee for director shall be elected to our board if the votes cast for such nominee's election exceed the votes cast against such nominee's election. Each director will serve a three-year term and will stand for election upon the third anniversary of the annual meeting at which such director was elected. In addition, our amended and restated certificate of incorporation and amended and restated bylaws will provide that vacancies and newly created directorships on our board may be filled only by a majority of the directors then serving on our board. Under our amended and restated certificate of incorporation, directors may be removed by the stockholders only by the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of our capital stock entitled to vote generally in the election of directors, voting together as a single class.

Authorized but Unissued Shares. The authorized but unissued shares of our common stock and our preferred stock will be available for future issuance without any further vote or action by our stockholders. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares of our common stock and our preferred stock could render more difficult or discourage an attempt to obtain control over us by means of a proxy contest, changes in our management, tender offer, merger or otherwise. In particular, the authorization of undesignated preferred stock makes it possible for our board to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of our company.

Stockholder Action; Advance Notification of Stockholder Nominations and Proposals. Our amended and restated certificate of incorporation and amended and restated bylaws will require that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and will eliminate the right of stockholders to act by written consent without a meeting. In addition, our amended and restated bylaws will provide that candidates for director may be nominated and other business brought before an annual meeting only by the board or by a stockholder who gives written notice to us no later than 90 days prior to nor earlier than 120 days prior to the first anniversary of the last annual meeting of stockholders. These provisions may have the effect of deterring unsolicited offers to acquire our company or delaying changes in our management, which could depress the market price of our common stock.

Special Stockholder Meetings. Under our amended and restated certificate of incorporation and amended and restated bylaws, only the board, the Chairman of our board or our Chief Executive Officer may call special meetings of stockholders.

Delaware Anti-Takeover Law. After this offering, we will be subject to Section 203 of the DGCL, which is an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date that the person became an interested stockholder, unless the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a business combination includes a merger, asset or stock sale, or another transaction resulting in a financial benefit to the interested stockholder. Generally, an interested stockholder is a person who, together with affiliates and associates, owns 15% or more of the corporation's voting stock. The existence of this provision may have an anti-takeover effect with respect to transactions that are not approved in advance by our board, including

discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

No Cumulative Voting. Under Delaware law, cumulative voting for the election of directors is not permitted unless a corporation's certificate of incorporation authorizes cumulative voting. Our amended and restated certificate of incorporation does not provide for cumulative voting in the election of directors. Cumulative voting allows a minority stockholder to vote a portion or all of its shares for one or more candidates for seats on our board. Without cumulative voting, a minority stockholder will not be able to gain as many seats on our board based on the number of shares of our stock the stockholder holds as the stockholder would be able to gain if cumulative voting were permitted. The absence of cumulative voting makes it more difficult for a minority stockholder to gain a seat on our board to influence its decision regarding a takeover.

Amendment of Charter Provisions. The amendment of certain of the above provisions in our amended and restated certificate of incorporation and our amended and restated bylaws requires approval by holders of at least a majority of our outstanding capital stock entitled to vote generally in the election of directors.

These and other provisions could have the effect of discouraging others from attempting hostile takeovers, and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation provides that no director will be personally liable for monetary damages for breach of any fiduciary duty as a director, except with respect to liability:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- under Section 174 of the DGCL (governing distributions to stockholders); or
- for any transaction from which the director derived any improper personal benefit.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors will be eliminated or limited to the fullest extent permitted by the DGCL, as so amended. The modification or repeal of this provision of our amended and restated certificate of incorporation will not adversely affect any right or protection of a director existing at the time of such modification or repeal.

Our amended and restated bylaws will also provide that we will, to the fullest extent permitted by law, indemnify our directors and officers against all liabilities and expenses in any suit or proceeding or arising out of their status as an officer or director or their activities in these capacities. We will also indemnify any person who, at our request, is or was serving as a director, officer, employee, agent or trustee of another corporation or of a partnership, limited liability company, joint venture, trust or other enterprise. We may, by action of our board, provide indemnification to our employees and agents within the same scope and effect as the foregoing indemnification of directors and officers.

Exclusive Forum

Our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware will, to the fullest extent permitted by law, be the sole and exclusive forum for any (1) derivative action or proceeding brought on behalf of our company, (2) action asserting a claim of breach of a fiduciary duty owed by any director or officer of our company to our company or our company's stockholders, (3) action asserting a claim against our company arising pursuant to any provision of the DGCL or our

amended and restated certificate of incorporation or our amended and restated bylaws or (4) action asserting a claim against our company governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of our company shall be deemed to have notice of and consented to the forum provisions in our amended and restated certificate of incorporation. However, the enforceability of similar forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be unenforceable.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. and its address is 250 Royall Street, Canton, MA 02021.

Listing

We have applied to list our common stock on the Nasdaq Capital Market under the symbol "LQDA".

SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there was no public market for shares of our common stock. Future sales of substantial amounts of shares of our common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock. Although we have applied to list shares of our common stock on the Nasdaq Capital Market, we cannot assure you that there will be an active public market for shares of our common stock.

Based upon the number of shares of our common stock outstanding as of , 2018, we will have shares of common stock outstanding upon the closing of this offering. All the shares of our common stock sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any such shares which may be held or acquired by our "affiliates," as that term is defined in Rule 144 promulgated under the Securities Act, which shares will be subject to the volume limitations and other restrictions of Rule 144 described below. The remaining shares of common stock will be "restricted securities," as that term is defined in Rule 144. These restricted securities will be eligible for public sale only if they are registered under the Securities Act, or if they qualify for an exemption from registration, for example, under Rule 144 or Rule 701, which are summarized below.

Subject to the provisions of Rules 144 and 701 under the Securities Act and the lock-up agreements described below, these restricted securities will be available for sale in the public market as follows:

Days After Date of this Prospectus	Shares Eligible for Sale	Comment
Date of Prospectus		Shares sold in this offering
90 Days		Shares saleable under Rules 144 and 701 that are not subject to a lock-up agreement
180 Days		Lock-up released; shares saleable under Rules 144 and 701

In addition, of the 23,783,999 shares of our common stock that were subject to options outstanding as of March 31, 2018, options to purchase 7,724,628 shares were exercisable as of March 31, 2018, and all of the warrants to purchase 4,394,914 shares of our common stock outstanding as of March 31, 2018 were exercisable as of that date. Furthermore, none of the 2,146,767 restricted stock units which were outstanding as of March 31, 2018 were vested as of such date.

Rule 144

In general, under Rule 144 as in effect on the date of this prospectus, a person who is not one of our affiliates at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months, would be entitled to sell an unlimited number of shares of our common stock provided current public information about us is available and, after owning such shares for at least one year, would be entitled to sell an unlimited number of shares of our common stock without restriction. Our affiliates who have beneficially owned restricted securities within the meaning of Rule 144 for at least six months would be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- 1.0% of the number of shares of our common stock then outstanding, which was equal to approximately shares as of , 2018; or

- the average weekly trading volume of our common stock on the during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Resales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price of $50,000, the seller must file a notice on Form 144 with the SEC and the Nasdaq Capital Market concurrently with either the placing of a sale with the broker or the execution directly with a market maker.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701.

The SEC has indicated that Rule 701 will apply to stock options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after an issuer becomes subject to the reporting requirements of the Exchange Act.

Form S-8 Registration Statements

Following the date of this prospectus, we intend to file one or more registration statements on Form S-8 under the Securities Act to register the issuance of up to shares of common stock under our equity incentive plans. These registration statements will become effective upon filing. All of the shares issued or to be issued upon the exercise of stock options or settlement of other awards under our stock plans are or will be eligible for resale in the public market without restrictions, subject to Rule 144 limitations applicable to affiliates and the lock-up agreements described below.

Lock-up Agreements

Notwithstanding the foregoing, we, our directors, executive officers and other holders of our shares of common stock and options and warrants to purchase our common stock collectively representing substantially all of our outstanding shares of common stock immediately prior to this offering, as well as the holders of our convertible preferred stock, have agreed with the underwriters, subject to limited exceptions, not to offer, sell, contract to sell, pledge, or otherwise dispose of, or to enter into any hedging or swap transaction with respect to, any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock for a period ending 180 days after the date of this prospectus.

The foregoing does not prohibit the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act during the period or transfers or dispositions by our directors, executive officers and other holders:

- with the prior written consent of Jefferies LLC and Cowen and Company, LLC;
- of shares of common stock or other securities acquired in this offering or in open market transactions after the completion of this offering;
- as a transfer pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction involving a change of control of our company;

- as a distribution to limited partners, members or stockholders of a holder of our common stock;
- as a transfer by a business entity to another business entity so long as the transferee controls or is under common control with the holder;
- as a transfer to a legal representative, heir, beneficiary or a member of the holder's immediate family;
- as a transfer to any trust for the direct or indirect benefit the holder or the immediate family of the holder and/or charitable organizations;
- as a bona fide gift, including pursuant to a domestic order or a negotiated divorce settlement, or estate or intestate succession; or
- as a transfer by operation of law, including pursuant to a court or regulatory agency order, a qualified domestic relations order or in connection with a divorce settlement.

Unless a transfer or disposition is made with the written consent of Jefferies LLC and Cowen and Company, LLC, the permitted transfers and dispositions described above may not be made (i) by any of our directors, executive officers and other holders unless the transfer or disposition does not result in any public disclosure or filing under the Exchange Act reporting a reduction in beneficial ownership of shares of common stock being required or voluntarily made during the lock-up period and (ii) by any of our directors, executive officers and other holders unless the transferee of each such shares agrees to be bound by the lock-up agreement. For more information regarding the lock-up agreements of our directors, executive officers and other holders, see "Underwriters."

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information subject to compliance with the terms of our insider trading policy. Prior to 180 days after the date of this offering, subject to early termination, the sale of any shares under such plan would be prohibited by the lock-up agreement that the director or officer has entered into with the underwriters.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS TO NON-U.S. HOLDERS

The following discussion is a summary of the material U.S. federal income tax consequences to Non-U.S. Holders, as defined below, of the purchase, ownership and disposition of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or the IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to Non-U.S. Holders that hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment) and not in connection with a trade or business conducted or a permanent establishment maintained in the United States. This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies and other financial institutions;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- tax-qualified retirement plans; and
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds.

If an entity treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S.

FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of a Non-U.S. Holder

For purposes of this discussion, a "Non-U.S. Holder" is any beneficial owner of our common stock that is neither a "U.S. person" nor an entity treated as a partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Distributions

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "— Sale or Other Taxable Disposition."

Dividends paid to a Non-U.S. Holder of our common stock will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Sale or Other Taxable Disposition

A Non-U.S. Holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our common stock unless:

- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a U.S. real property interest, or USRPI, by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes.

Gain described in the first bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the second bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and

our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our common stock will not be subject to U.S. federal income tax if our common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such Non-U.S. Holder owned, actually and constructively, 5% or less of our common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-U.S. Holder's holding period.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

However, no assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above. If we are a USRPHC and either our common stock is not regularly traded on an established securities market or a Non-U.S. Holder holds, or is treated as holding, more than 5% of our outstanding common stock, directly or indirectly, during the applicable testing period, any gain recognized by such Non-U.S. Holder will generally be subject to U.S. federal income tax rates in the same manner as if the Non-U.S. Holder were a resident of the United States. If we are a USRPHC and our common stock is not regularly traded on an established securities market, such Non-U.S. Holder's proceeds received on the disposition of shares will also generally be subject to withholding at a rate of 15%. Prospective investors are encouraged to consult their own tax advisors regarding the possible consequences to them if we are, or were to become, a USRPHC.

Information Reporting and Backup Withholding

Payments of dividends on our common stock will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN or W-8BEN-E, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our common stock paid to the Non-U.S. Holder, regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our common stock within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting, if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person, or the holder otherwise establishes an exemption. Proceeds of a disposition of our common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners", as defined in the Code, or furnishes identifying information regarding each substantial United States owner or

(3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our common stock, and will apply to payments of gross proceeds from the sale or other disposition of such stock on or after January 1, 2019.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated , 2018, among us, Jefferies LLC and Cowen and Company, LLC, as the representatives of the underwriters named below and the joint book-running managers of this offering, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the respective number of shares of common stock shown opposite its name below:

UNDERWRITER	NUMBER OF SHARES
Jefferies LLC	
Cowen and Company, LLC	
Needham & Company, LLC	
Wedbush Securities Inc.	
Total	

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that, following the pricing of this offering, they currently intend to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters are offering the shares of common stock subject to their acceptance of the shares of common stock from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The underwriters will receive the same underwriting discount on these shares as they will on any other shares sold to the public in this offering.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of common stock to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers, which may include the underwriters, at that price less a concession not in excess of $ per share of common

stock. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of $ per share of common stock to certain brokers and dealers. After the offering, the initial public offering price, concession and reallowance to dealers may be reduced by the representatives. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share		Total	
	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares
Public offering price	$	$	$	$
Underwriting discounts and commissions paid by us	$	$	$	$
Proceeds to us, before expenses	$	$	$	$

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $ million. We have also agreed to reimburse the underwriters for certain expenses, including an amount not to exceed $ in connection with the clearance of this offering with the Financial Industry Regulatory Authority, Inc., as set forth in the underwriting agreement.

Determination of Offering Price

Prior to this offering, there has not been a public market for our common stock. Consequently, the initial public offering price for our common stock will be determined by negotiations between us and the representatives. Among the factors to be considered in these negotiations will be prevailing market conditions, our financial information, market valuations of other companies that we and the underwriters believe to be comparable to us, estimates of our business potential, the present state of our development and other factors deemed relevant.

We offer no assurances that the initial public offering price will correspond to the price at which the common stock will trade in the public market subsequent to the offering or that an active trading market for the common stock will develop and continue after the offering.

Listing

We have applied to list our common stock on the Nasdaq Capital Market under the symbol "LQDA".

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of shares from us at the public offering price set forth on the cover page of this prospectus, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to specified conditions, to purchase a number of additional shares proportionate to that underwriter's initial purchase commitment as indicated in the table above. This option may be exercised only if the underwriters sell more shares than the total number set forth on the cover page of this prospectus.

No Sales of Similar Securities

We, our officers, directors and holders of all of our outstanding capital stock have agreed, subject to specified exceptions, not to directly or indirectly:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open "put equivalent position" within the meaning of Rule 16a-l(h) under the Exchange Act;
- otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially; or
- publicly announce an intention to do any of the foregoing for a period of 180 days after the date of this prospectus without the prior written consent of Jefferies LLC and Cowen and Company, LLC.

This restriction terminates after the close of trading of the common stock on and including the 180th day after the date of this prospectus.

Jefferies LLC and Cowen and Company, LLC may, in their discretion and at any time or from time to time before the termination of the 180-day period release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement, providing consent to the sale of shares prior to the expiration of the lock-up period.

Stabilization

The underwriters have advised us that they, pursuant to Regulation M under the Exchange Act, and certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve either "covered" short sales or "naked" short sales.

"Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of our common stock in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

"Naked" short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriter's purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the websites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' websites and any information contained in any other website maintained by any of the underwriters is not part of this prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriter and certain of its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriter and certain of its affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriter and certain of its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriters or their respective affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their respective affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the common stock offered hereby. The underwriters and certain of their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

Australia

This prospectus is not a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus in Australia:

You confirm and warrant that you are either:

- a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;
- a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to us which complies with the requirements of

section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;

- a person associated with our company under Section 708(12) of the Corporations Act; or
- a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

Canada

Resale Restrictions

The distribution of our common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of our common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Representations of Canadian Purchasers

By purchasing our common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the common stock without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106 — Prospectus Exemptions;
- the purchaser is a "permitted client" as defined in National Instrument 31-103 — Registration Requirements, Exemptions and Ongoing Registrant Obligations;
- where required by law, the purchaser is purchasing as principal and not as agent; and
- the purchaser has reviewed the text above under "— Resale Restrictions."

Conflicts of Interest

Canadian purchasers are hereby notified that the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105 — *Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this document.

Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the prospectus (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of our common stock in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those

persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment

Canadian purchasers of our common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in our common stock in their particular circumstances and about the eligibility of our common stock for investment by the purchaser under relevant Canadian legislation.

Upon receipt of this document, each Canadian investor hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the securities described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur canadien confirme par les présentes qu'il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d'achat ou tout avis) soient rédigés en anglais seulement.*

European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive, each, a Relevant Member State, an offer to the public of any shares of common stock which are the subject of the offering contemplated by this prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any shares of common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- to any legal entity which is a "qualified investor" as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the underwriters or the underwriters nominated by us for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of common stock shall require us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression "offer shares of common stock to the public" in relation to the shares of common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the common stock to be offered so as to enable an investor to decide to purchase or subscribe to the common stock, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong, or SFO, and any rules made under that Ordinance; or in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong, or CO, or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each

case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the Initial Purchaser will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the common stock may not be circulated or distributed, nor may the common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the common stock is subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor, as defined in Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities, as defined in Section 239(1) of the SFA, of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the common stock pursuant to an offer made under Section 275 of the SFA except:

- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to the offering, our company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

United Kingdom

This prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated, each such person being referred to as a "relevant person".

This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by DLA Piper LLP (US), Short Hills, New Jersey. Cooley LLP is serving as counsel for the underwriters.

EXPERTS

The financial statements as of December 31, 2016 and 2017 and for each of the two years in the period ended December 31, 2017 included in this prospectus have been so included in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 2 to the financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement.

Upon the closing of this offering, we will be required to file periodic reports, proxy statements and other information with the SEC pursuant to the Exchange Act. You may read and copy this information at the Public Reference Room of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference rooms by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that site is www.sec.gov. We also maintain a website at *www.liquidia.com*, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus.

INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Liquidia Technologies, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Liquidia Technologies, Inc. as of December 31, 2017 and 2016, and the related statements of operations and comprehensive loss, of stockholders' deficit, and of cash flows for the years then ended, including the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Substantial Doubt About the Company's Ability to Continue as a Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered recurring losses and cash outflows from operations, has an accumulated deficit, and debt maturing within twelve months that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Raleigh, North Carolina
March 14, 2018

We have served as the Company's auditor since 2014.

Liquidia Technologies, Inc.
Balance Sheets

	December 31, 2016	December 31, 2017
Assets		
Current assets:		
Cash	$ 1,438,712	$ 3,418,979
Accounts receivable, less allowance of $48,108 and $48,108, respectively	1,149,402	1,622,179
Related party receivable, net, less allowance of $0 and $0, respectively	89,318	—
Prepaid expenses and other current assets	468,666	443,460
Total current assets	3,146,098	5,484,618
Property, plant and equipment, net	4,347,711	8,243,012
Prepaid expenses and other assets	992,724	1,115,972
Total assets	$ 8,486,533	$ 14,843,602
Liabilities and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 2,407,244	$ 4,424,948
Accrued expenses	892,859	2,785,618
Accrued compensation	1,953,816	1,952,505
Accrued interest	62,303	1,408,869
Deferred rent	208,914	268,628
Current portion of capital lease obligations	324,512	469,798
Current portion of deferred revenue	3,343,217	3,605,199
Current portion of long-term debt	2,898,101	15,608,349
Total current liabilities	12,090,966	30,523,914
Long-term capital lease obligations	243,426	510,625
Long-term deferred rent	456,904	2,612,552
Long-term deferred revenue	8,724,881	5,527,296
Long-term debt	5,215,559	5,556,782
Deferred financing obligation	—	1,341,810
Warrant liabilities	—	2,462,859
Total liabilities	26,731,736	48,535,838
Commitments and contingencies (Note 10)		
Stockholders' deficit:		
Preferred stock — Series A, $0.001 par value, 1,974,430 shares authorized, issued and outstanding as of December 31, 2016 and 2017, liquidation preference of $2,625,992	1,974	1,974
Preferred stock — Series A-1, $0.001 par value, 1,834,862 shares authorized, issued and outstanding as of December 31, 2016 and 2017, liquidation preference of $6,000,000	1,835	1,835
Preferred stock — Series B, $0.001 par value, 4,620,123 shares authorized, 4,496,908 issued and outstanding as of December 31, 2016 and 2017, liquidation preference of $16,000,000	4,497	4,497
Preferred stock — Series C, $0.001 par value, 17,102,578 shares authorized, issued and outstanding as of December 31, 2016 and 2017, liquidation preference of $25,000,035	17,103	17,103
Preferred stock — Series C-1, $0.001 par value, 17,556,178 and 91,000,000 shares authorized as of December 31, 2016 and 2017, respectively, 17,556,178 issued and outstanding as of December 31, 2016 and 2017, liquidation preference of $14,000,000	17,556	17,556
Common stock — Class A (voting), $0.001 par value, 87,615,152 and 175,000,000 shares authorized as of December 31, 2016 and 2017, respectivley, 8,978,960 and 9,254,228 shares issued and outstanding as of December 31, 2016 and 2017, respectively	8,979	9,254
Common stock — Class B (non-voting), $0.001 par value, 330,664 shares authorized, issued and outstanding as of December 31, 2016 and 2017	331	331
Additional paid-in capital	66,016,593	79,668,525
Less: Related party note receivable for stock option exercise	(55,000)	—
Accumulated deficit	(84,259,071)	(113,413,311)
Total stockholders' deficit	(18,245,203)	(33,692,236)
Total liabilities and stockholders' deficit	$ 8,486,533	$ 14,843,602

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.
Statements of Operations and Comprehensive Loss

	For the year ended December 31,	
	2016	2017
Revenues	$ 13,216,989	$ 7,258,123
Costs and expenses:		
Cost of sales	918,778	319,759
Research and development	23,319,886	24,753,876
General and administrative	4,841,128	10,212,774
Total costs and expenses	29,079,792	35,286,409
Loss from operations	(15,862,803)	(28,028,286)
Other income (expense):		
Interest income	14,906	268
Interest expense	(85,865)	(13,010,475)
Derivative and warrant fair value adjustments	—	11,884,253
Total other income (expense), net	(70,959)	(1,125,954)
Net loss	(15,933,762)	(29,154,240)
Other comprehensive loss	—	—
Comprehensive loss	$ (15,933,762)	$ (29,154,240)
PER SHARE DATA:		
Basic and diluted net loss per share	$ (2.16)	$ (3.08)
Weighted average common shares outstanding, basic and diluted	7,361,596	9,475,083

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.

Statements of Stockholders' Deficit

For the years ended December 31, 2016 and 2017

	Preferred Stock										Common Stock						
	Series A		Series A-1		Series B		Series C		Series C-1		Class A Voting		Class B Nonvoting		Additional Paid-In Capital	Accumulated Deficit	Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance as of December 31, 2015	**1,974,430**	**$ 1,974**	**1,834,862**	**$ 1,835**	**4,496,908**	**$ 4,497**	**17,102,578**	**$ 17,103**	**17,556,178**	**$ 17,556**	**5,855,807**	**$ 5,856**	**330,664**	**$ 331**	**$65,171,804**	**$ (68,325,309)**	**$ (3,104,353)**
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	3,123,153	3,123	—	—	497,345	—	500,468
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	347,444	—	347,444
Note to related party shareholder	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(55,000)	—	(55,000)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(15,933,762)	(15,933,762)
Balance as of December 31, 2016	**1,974,430**	**1,974**	**1,834,862**	**1,835**	**4,496,908**	**4,497**	**17,102,578**	**17,103**	**17,556,178**	**17,556**	**8,978,960**	**8,979**	**330,664**	**331**	**65,961,593**	**(84,259,071)**	**(18,245,203)**
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	255,268	255	—	—	86,448	—	86,703
Exercise of warrants	—	—	—	—	—	—	—	—	—	—	20,000	20	—	—	9,980	—	10,000
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	514,092	—	514,092
Repayment of note to related party shareholder	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55,000	—	55,000
Beneficial conversion feature on Convertible Notes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,041,412	—	13,041,412
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(29,154,240)	(29,154,240)
Balance as of December 31, 2017	1,974,430	$ 1,974	1,834,862	$ 1,835	4,496,908	$ 4,497	17,102,578	$ 17,103	17,556,178	$ 17,556	9,254,228	$ 9,254	330,664	$ 331	$79,668,525	$(113,413,311)	$ (33,692,236)

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.
Statements of Cash Flows

	For the year ended December 31,	
	2016	2017
Operating activities		
Net loss	$ (15,933,762)	$ (29,154,240)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	347,444	514,092
Depreciation	651,560	931,931
Amortization of discount on long-term debt	—	9,837,985
Non-cash interest expense	—	2,859,102
Derivative fair value adjustment	—	(9,872,990)
Warrant fair value adjustment	—	(2,011,263)
Non-cash rent expense	391,651	233,449
Lease incentive	—	1,981,915
Changes in operating assets and liabilities:		
Accounts and related party receivables	2,527,304	(328,458)
Prepaid expenses and other current assets	1,655,775	25,206
Other non-current assets	(966,104)	(123,249)
Accounts payable	1,313,193	1,872,852
Accrued expenses	575,903	1,985,263
Accrued compensation	892,426	(1,310)
Accrued interest	5,374	(105,036)
Deferred revenue	(5,407,465)	(2,935,603)
Net cash used in operating activities	(13,946,701)	(24,290,354)
Investing activities		
Purchases of property, plant and equipment	(2,885,159)	(2,544,064)
Net cash used in investing activities	(2,885,159)	(2,544,064)
Financing activities		
Principal payments on capital lease obligations	(335,875)	(384,024)
Proceeds from issuance of convertible notes	—	27,388,524
Proceeds from issuance of long-term debt	6,000,000	4,000,000
Principal payments on long-term debt	—	(888,890)
Payments for debt issuance costs	—	(1,397,628)
Proceeds from exercise of stock options and warrants	445,468	96,703
Net cash provided by financing activities	6,109,593	28,814,685
Net increase (decrease) in cash	(10,722,267)	1,980,267
Cash, beginning of period	12,160,979	1,438,712
Cash, end of period	$ 1,438,712	$ 3,418,979
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 92,155	$ 313,390
Purchase of equipment with capital leases	$ 69,136	$ 796,508
Purchase of equipment in accounts payable	$ 21,486	$ 144,852
Purchase of build-to-suit asset with deferred financing obligation	$ —	$ 1,341,810
Conversion of accrued interest to long-term debt	$ 8,251	$ 41,271
Conversion of accrued expenses to debt	$ 1,500,000	$ —
Recording of warrant liabilities with corresponding discount on convertible notes	$ —	$ 4,474,122
Recording of derivative liabilities with corresponding discount on convertible notes	$ —	$ 9,872,990
Recording of discount on convertible notes as paid-in capital for beneficial conversion feature	$ —	$ 12,119,584
Issuance of convertible note for debt issuance costs	$ —	$ 442,356
Related party note receivable for stock option exercise	$ 55,000	$ —

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.

Notes to Financial Statements

December 31, 2016 and 2017

1. Organization and Description of the Business

Liquidia Technologies, Inc. ("Liquidia" or the "Company"), is a late-stage clinical biopharmaceutical company focused on the development and commercialization of human therapeutics using the Company's proprietary PRINT technology to transform the lives of patients. PRINT is a particle engineering platform that enables precise production of uniform drug particles designed to improve the safety, efficacy and performance of a wide range of therapies. The Company is currently focused on the development of two product candidates for which it holds worldwide commercial rights: LIQ861 for the treatment of pulmonary arterial hypertension and LIQ865 for the treatment of local post-operative pain.

The development and commercialization activities are conducted at the Company's headquarters located in Morrisville, North Carolina. The Company was incorporated under the laws of the state of Delaware in 2004.

2. Significant Accounting Policies

Basis of Presentation

The Company's financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Such financial statements reflect all adjustments that are, in management's opinion, necessary to present fairly, in all material respects, the Company's financial position, results of operations and cash flows and are presented in U.S. Dollars. Certain prior period amounts have been reclassified to conform to the current period presentation.

Variable Interest Entities

The Company identifies entities (i) that do not have sufficient equity investment at risk to permit the entity to finance its activities without additional subordinated financial support or (ii) in which the equity investors lack an essential characteristic of a controlling financial interest as variable interest entities ("VIE" or "VIEs"). The Company performs an initial and on-going evaluation of the entities with which the Company has variable interests to determine if any of these entities are VIEs. If an entity is identified as a VIE, the Company performs an assessment to determine whether the Company has both (i) the power to direct activities that most significantly impact the VIE's economic performance and (ii) the obligation to absorb losses from or the right to receive benefits of the VIE that could potentially be significant to the VIE. If both of these criteria are satisfied, the Company is identified as the primary beneficiary of the VIE and the entity must be consolidated.

Envisia Therapeutics Inc.

The Company determined Envisia Therapeutics Inc. ("Envisia") is a VIE. The Company formed Envisia in November 2013 through the issuance of $25 million of Series A preferred stock of Envisia to investors who at the time were also investors in Liquidia. In addition, at formation, in exchange for 1,000,000 shares of Envisia common stock, the Company granted to Envisia a worldwide, exclusive, royalty-free license to utilize the PRINT technology in specified fields. Envisia's focus is on therapies in ophthalmology and its programs were in the preclinical stage of development when the company was formed. Under the license agreement, any intellectual property advancements by Envisia related to PRINT automatically become licensed to Liquidia under a transferable, fully paid, royalty-free, exclusive, sub-licensable, worldwide license, for use in its respective fields. Immediately subsequent to the formation, pursuant to an obligation to UNC under the UNC Letter Agreement (Note 5), the Company transfered 200,000 shares of Envisia common stock to UNC. The Company's initial investment in the 800,000 shares of Envisia common stock (post transfer of shares to UNC) was recorded at its estimated fair value of $930,000.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

In May 2015, the Company repurchased the license in the dermatology and articular fields, as defined, from Envisia in exchange for 50,000 shares of its Envisia common stock, reducing the Company's ownership percentage. In March 2017, the license related to the Otic field, along with other intellectual property rights, as defined, was purchased back by the Company from Envisia in exchange for 75,000 shares of its Envisia common stock. The purchase prices were not material and were based upon prior third-party appraisals performed by CapVal-American Business Appraisers, LLC. The valuations of Envisia common stock were for Internal Revenue Code Section 409A, or 409A, and ASC 718, *Compensation—Stock Compensation*, or ASC 718, purposes. These standards of value may not be appropriate for a market transaction, and furthermore, the dates are different and therefore such number of shares could be different for this purpose. The Company's initial investment in Envisia common stock was recorded at its estimated fair value of $930,000 as of the formation date. As part of the license agreement entered into between Liquidia and Envisia, any intellectual property advancements by Envisia related to PRINT automatically become licensed to Liquidia under a transferable, fully paid, royalty-free, exclusive, sub-licensable, worldwide license, for use in its respective fields.

In October 2017, Envisia sold its license to the PRINT technology to Aerie Pharmaceuticals, Inc. ("Aerie") for initial consideration of $25 million in the form of a combination of cash and Aerie common stock, with the potential to earn additional payments subject to achievement of certain product approval milestones. The Company did not receive any proceeds from this transaction at closing.

As of December 31, 2016 and 2017, Liquidia's common equity ownership percentage in Envisia was approximately 77% and 75%, respectively, and its ownership percentage of voting shares was 4.9% and 4.4%, respectively. Although Liquidia's common equity ownership in Envisia was greater than 50%, control did not rest with the Company; however, the Company had the ability to exercise significant influence over operating and financial policies of Envisia and for a limited time had certain management personnel in common with Envisia. The Company does not have the power to direct activities of Envisia that most significantly impact Envisia's economic performance. Envisia has a board that is independent from Liquidia which approves all activities that affect Envisia's performance, such as selling and purchasing of goods or services; selecting, acquiring or disposing of assets; and researching and developing new products or processes. Additionally, the license rights given to Envisia are irrevocable. Accordingly, the Company accounts for Envisia using the equity method.

LQ3 Pharma, Inc.

The Company has determined that LQ3 Pharma, Inc ("LQ3") is a VIE. In July 2014, the Company formed LQ3 through the issuance of $10 million Series A preferred stock of LQ3 primarily from a single investor who also holds an investment in Liquidia. At the time of the formation of LQ3, the Company granted to LQ3 a worldwide, exclusive, royalty-free license to utilize the PRINT technology in a specified field. LQ3's focus was on field of diseases in the head and neck, leveraging Liquidia's PRINT platform. Following the formation of LQ3, the Company held 900,000 shares of LQ3 common stock after the transfer of 100,000 shares of LQ3 to UNC related to obligations under the UNC Letter Agreement (see Note 5).

As of December 31, 2015, Liquidia's ownership percentage of voting shares was 19.8%. The Company's initial investment in LQ3 common stock was recorded at its estimated fair value of $157,140 as of the formation date. As part of the license agreement entered into between Liquidia and LQ3, any intellectual property advancements by LQ3 for PRINT revert to Liquidia, to be added to the body of technology licensed to LQ3 in its respective fields.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

In February 2016, LQ3 terminated the development of its sole product and, therefore, ceased its operations. LQ3 also relinquished its license to the PRINT technology for a waiver by the Company of any fees or payments related to shared services beyond that which had been billed. As of the date of termination of operations, no amounts were due from LQ3.

As of December 31, 2016 and 2017, Liquidia's common equity ownership percentage was 0%. Although Liquidia's common equity ownership in LQ3 was greater than 50% in prior years, control did not rest with the Company; however, the Company had the ability to exercise significant influence over operating and financial policies. The Company did not have the power to direct activities of LQ3 that most significantly impacted LQ3's economic performance. Additionally, the license rights given to LQ3 were irrevocable. Accordingly, the Company accounted for LQ3 using the equity method.

Envisia and LQ3 reported net losses from operations for all years since inception. As a result of the Company recording its share of losses incurred by each of these investees in their intial year, the Company's investment in each was reduced to $0 (as of December 31, 2013 for Envisia and December 31, 2014 for LQ3). Envisia and LQ3 reported losses for all subsequent periods, and accordingly, the Company's investment in these entites remained recorded at $0 for all years presented. The initial investment amounts recorded represent the Company's maximum risk of loss related to these VIEs.

Going Concern

The Company's financial statements have been prepared assuming the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business.

The Company's operations have consisted primarily of developing its technology, developing products, prosecuting its intellectual property and securing financing. The Company has incurred recurring losses and cash outflows from operations, has an accumulated deficit, and has debt maturing within twelve months. The Company expects to continue to incur losses in the foreseeable future and will require additional financial resources to continue to advance its products and intellectual property, in addition to repaying its maturing debt and other obligations.

These circumstances raise substantial doubt about the Company's ability to continue as a going concern. Management's plans with regard to this matter include continuing attempts to obtain additional financing from its current investors and new investors to sustain its operations or to pursue other financing alternatives. However, there is no assurance that the Company will be successful in obtaining sufficient financing on terms acceptable to the Company, and the failure of the Company to obtain sufficient funds on acceptable terms, when needed, could have a material adverse effect on the Company's business, results of operations and financial condition. If sufficient financings are not obtained, this may necessitate other actions by the Company. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual amounts could differ from those estimates.

Shared Services

Liquidia was party to shared service agreements with Envisia and LQ3, whereby they shared facilities, patent costs, management services and manufacturing in exchange for monetary consideration through June 30, 2016, after which such agreements were terminated.

Equity Method Investments

The Company holds investments in equity method investees. Investments in equity method investees are those for which the Company has the ability to exercise significant influence but does not control and is not the primary beneficiary. Significant influence typically exists if the Company has a 20% or more voting interest in the venture, unless predominant evidence to the contrary exists. Under this method of accounting, the Company records its proportionate share of the net earnings or losses of equity method investees and a corresponding increase or decrease to the investment balances. Cash payments to equity method investees such as additional investments, loans and advances, as well as payments from equity method investees such as dividends, distributions and repayments of loans and advances, are recorded as adjustments to investment balances. The Company evaluates its equity method investments for impairment whenever events or changes in circumstances indicate that the carrying amounts of such investments may not be recoverable.

Cash

The Company considers all highly liquid investments with a maturity of three months or less, when purchased, to be cash equivalents. The Company had no cash equivalents at December 31, 2016 and 2017.

Accounts Receivable

Accounts receivable are stated at historical cost less an allowance for doubtful accounts as of each Balance Sheet date. The Company does not accrue interest on trade receivables. On a periodic basis, the Company evaluates its accounts receivable and establishes an allowance based on its history of collections and write-offs and the current status of all receivables. The Company writes off customer receivables when it becomes apparent, based upon customer facts and circumstances, that such amounts will not be collected.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash, accounts receivable and related party receivables. The Company is exposed to credit risk, subject to federal deposit insurance, in the event of default by the financial institutions holding its cash to the extent of amounts recorded on the Balance Sheet. With regards to cash, 100% of the Company's cash is held on deposit with Pacific Western Bank. With regards to revenues and accounts receivable, GlaxoSmithKline ("GSK", "GSK Vaccines" and "GSK Inhaled") accounted for 90% and 84% of the Company's revenues for the years ended December 31, 2016 and 2017, respectively, and 67% and 69% of the Company's accounts receivable as of December 31, 2016 and 2017, respectively.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment is computed using the straight-line method over the estimated useful lives of the assets beginning when the assets are placed in service. Estimated useful lives for the major asset categories are:

Lab equipment	5 - 7 years
Office equipment	5 years
Furniture and fixtures	10 years
Computer equipment	3 years
Leasehold improvements	Lesser of life of the asset or remaining lease term

The Company has entered into grant agreements with governmental agencies to perform defined research activities. Under those grants, the Company purchases lab equipment required to perform the necessary research. Those specific assets are depreciated over the lesser of the useful life of the assets or the effective duration of the grant.

Major renewals and improvements are capitalized to the extent that they increase the useful economic life or increase the expected economic benefit of the underlying asset. Maintenance and repairs are charged to operations as incurred. When items of property, plant and equipment are sold or retired, the related cost and accumulated depreciation or amortization is removed from the accounts, and any gain or loss is included in operating expenses in the accompanying Statements of Operations and Comprehensive Loss.

Impairment of Long-Lived Assets

The Company evaluates long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. If the estimated future cash flows (undiscounted and without interest charges) from the use of an asset are less than the carrying value, a write-down is recorded to reduce the related asset to its estimated fair value. To date, no such write-downs have occurred.

Deferred Rent

Rent expense is recognized on a straight-line basis over the life of the lease. The difference between rent expense recognized and rental payments, as stipulated in the lease, is reflected as deferred rent in the accompanying Balance Sheets and amortized over the life of the lease. In addition, deferred rent also includes landlord incentives on a portion of the leasehold improvement cost, which is amortized over the life of the lease.

Revenue Recognition

The Company follows the revenue-recognition guidance established by Financial Accounting Standards Board, or FASB, ASC Topic 605, *Revenue Recognition*, or ASC 605. In determining the accounting for collaboration agreements, the Company follows the related guidance. Guidance is provided on whether an arrangement that involves multiple revenue-generating activities or deliverables should be divided into separate units of accounting for revenue-recognition purposes and, if division is required, how the arrangement consideration should be allocated among the separate units of accounting. If the arrangement constitutes separate units of accounting according to the separation criteria of the guidance, a revenue-

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

recognition policy must be determined for each unit. If the arrangement constitutes a single unit of accounting, the revenue-recognition policy must be determined for the entire arrangement.

Collaboration research and development revenue is recognized as research is performed and related expenses are incurred. Non-refundable up-front fees, which may include, for example, an initial payment upon effectiveness of the contractual relationship or payment to secure a right for a future license, are recorded as deferred revenue and recognized into revenue on a straight-line basis over the estimated period of the Company's substantive performance obligations. If the Company does not have substantive performance obligations, it recognizes non-refundable up-front fees into revenue over the estimated development period.

Revenue for non-refundable payments based on the achievement of milestone events under collaboration agreements are recognized in accordance with ASC 605-28-50-2(e). Milestone events under the Company's collaboration agreements may include research, development, regulatory or commercialization events. A milestone payment is recognized as revenue when the applicable event is achieved, if the event meets the definition of a milestone and the milestone is determined to be substantive. A milestone event is an event having all of the following characteristics: (1) there is substantive uncertainty regarding achievement of the milestone event at the inception of the arrangement; (2) the event can only be achieved based, in whole or in part, on either the Company's performance or a specific outcome resulting from the Company's performance; and (3) if achieved, the event would result in an additional payment due to the Company. The Company also treats events that can only be achieved based, in whole or in part, on either a third party's performance or a specific outcome resulting from a third party's performance, as milestone events if the criteria of the guidance are otherwise satisfied.

A milestone is considered substantive if it meets all of the following criteria: (a) the payment is commensurate with either the Company's performance to achieve the milestone or with the enhancement of the value of the delivered item; (b) the payment relates solely to past performance; and (c) the payment is reasonable relative to all of the deliverables and payment terms within the arrangement. If any of these conditions is not met, the milestone payment is deferred and recognized on a straight-line basis over a period determined as discussed above.

Grant payments are recognized as grant revenue as the Company performs the work and incurs reimbursable costs in accordance with the objectives of the award.

Segment Data

The Company manages, reports and evaluates its business in the following two segments: Pharmaceutical Products (formerly named Specialty Pharmaceutical) and Partnering and Licensing. The Company's reportable operating segments have been determined in accordance with the Company's internal management structure, which is organized based on operating activities, the manner in which the Company organizes segments for making operating decisions and assessing performance and the availability of separate financial results. Unallocated operations and corporate expenses, such as depreciation, facilities costs, corporate management costs and interest expense, are represented within Corporate / Operations.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

Pharmaceutical Products — The Company utilizes its proprietary PRINT technology to develop novel drug products (such as LIQ861 and LIQ865) based on presently commercialized drug products. The Company has not commenced commercialization of its pharmaceutical drug products and has not recognized any revenues to date. The Company intends to commercialize LIQ861 independently in the United States and intends to evaluate its commercialization and development plans for LIQ865. Revenues from these licensing arrangements would be recognized in this segment. In addition, if LIQ861 or LIQ865 are approved for marketing, the Company expects to recognize any revenues from sales of that product in this segment.

Partnering and Licensing — The Company utilizes its proprietary PRINT technology to enable the development of drug products by other pharmaceutical companies. The Company assists these customers in the development of their drug products through research and development services like particle formulation and manufacturing at market billing rates. The Company also typically receives up-front fees or technology access payments and milestone payments for each phase of clinical achievement. If these drug products achieve commercialization, the Company also expects to be eligible to receive royalties from the sale of their drug products.

For the years ended December 31, 2016 and 2017, the majority of the Company's revenue from collaborating and licensing was derived from two separate agreements with GSK, namely the GSK Vaccines Collaboration and Option Agreement and the GSK Inhaled Collaboration and Option Agreement. The arrangements with GSK accounted for $11,827,426 and $6,114,311, representing 90% and 84% of total revenue for the years ended December 31, 2016 and 2017, respectively. This revenue was comprised of billings for research and development services, milestone payments and amortization of deferred revenue from up-front payments.

The Company revised its segment reporting to reflect changes in the way the Chief Operating Decision Maker ("CODM") viewed the business. These changes were in the organizational structure and accountability over certain unallocated and general research and development costs that were not directly related to a particular segment. Further, the Specialty Pharmaceutical segment was renamed the Pharmaceutical Products segment to better reflect its activities. The segment data is reflected below for the years ended December 31, 2016 and 2017, as follows:

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

	2016	2017
Revenues:		
Pharmaceutical Products	$ —	$ —
Partnering and Licensing	13,216,989	7,258,123
Total	$ 13,216,989	$ 7,258,123
Operating (loss) income:		
Pharmaceutical Products	$ (15,444,224)	$ (13,625,296)
Partnering and Licensing	7,672,946	2,303,622
Corporate / Operations	(8,091,525)	(16,706,612)
Total	(15,862,803)	(28,028,286)
Interest income	14,906	268
Interest expense	(85,865)	(13,010,475)
Derivative and warrant fair value adjustments	—	11,884,253
Net loss	$ (15,933,762)	$ (29,154,240)

Segment information by asset is not disclosed as it is not reviewed by the CODM or used to allocate resources or to assess the Company's operating results and financial performance. All long-lived assets are domiciled within the United States and all revenues were earned within the United States.

Research and Development Expense

Research and development costs are expensed as incurred and include direct costs incurred to third parties related to the salaries of, and stock-based compensation for, personnel involved in research and development activities, contractor fees, grant expenses, administrative expenses and allocations of research-related overhead costs. Administrative expenses and research-related overhead costs included in research and development expense consist of allocations of facility and equipment lease charges, depreciation and amortization of assets and insurance directly related to research and development activities.

Patent Maintenance

Liquidia is responsible for all patent costs, past and future, associated with the preparation, filing, prosecution, issuance, maintenance, enforcement and defense of United States patent applications. Such costs are recorded as general and administrative expenses as incurred. To the extent that the Company's licensees share these costs, such benefit is recorded as a reduction of the related expenses.

Stock-Based Compensation

The Company accounts for stock-based compensation under the provisions of ASC 718, *Compensation — Stock Compensation* ("ASC 718"), which requires the measurement and recognition of compensation

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

expense for all share-based payment awards made to employees and directors, including employee stock options, based on estimated fair values. ASC 718 requires companies to estimate the fair value of share-based awards on the grant date using an option pricing model. The value of the portion of the award that is ultimately expected to vest is recorded as expense over the requisite service periods in the Company's Statements of Operations and Comprehensive Loss.

The Company accounts for equity instruments issued to nonemployees in accordance with the provisions of ASC 505-50, *Equity-Based Payments to Non-Employees*, under which the stock-based compensation expense is recognized in the financial statements based on their grant date fair values. The Company values equity instruments, stock options and warrants for common stock granted to lenders and consultants using the Black-Scholes option pricing model. The measurement of non-employee stock-based compensation is recognized as an expense over the term of the related financing or the period over which services are received.

Defined Contribution Retirement Plan

The Company maintains a defined contribution 401(k) retirement plan for its employees, pursuant to which employees who have completed sixty days of service may elect to contribute a portion of their compensation on a tax-deferred basis up to the maximum amount permitted by the Internal Revenue Code, as amended. The Company provides a 4% matching contribution to eligible employee contributions. Matching contributions are made subsequent to the year to which they relate. The Company's matching contributions due were $358,037 and $377,623 and were included in Accrued Expenses in the accompanying Balance Sheets as of December 31, 2016 and 2017, respectively.

Net Loss Per Share

Basic net loss per share is computed by dividing the net loss by the weighted average number of common shares outstanding during the period.

Diluted net loss per share is computed by dividing net loss by the weighted average number of common shares adjusted for the dilutive effect of common equivalent shares outstanding during the period. Common stock equivalents consist of preferred stock, stock options and stock warrants. Net loss per share attributable to common stockholders is calculated using the two-class method, which is an earnings allocation formula that determines net loss per share for the holders of the Company's common shares and participating securities. The Company's convertible preferred stock contains participating rights in any dividend paid by the Company and are deemed to be participating securities. Net loss attributable to common stockholdres and participating preferred shares are allocated to each share on an as-converted basis as if all of the earnings for the period had been distributed. The participating securities do not include a contractual obligation to share in the losses of the Company and are not included in the calculation of net loss per share in the periods that have a net loss. Common equivalent shares are excluded from the computation in periods in which they have an anti-dilutive effect on net loss per share.

Diluted net loss per share is computed using the more dilutive of (a) the two-class method or (b) the if-converted method. In periods in which the Company reports a net loss attributable to common stockholders, diluted net loss per share attributable to common stockholders is the same as basic net loss per share attributable to common stockholders since dilutive common shares are not assumed to have been

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

issued if their effect is anti-dilutive. Diluted net loss per share is equivalent to basic net loss per share for all years presented herein because common stock equivalent shares from unexercised stock options, outstanding warrants, preferred stock and common shares expected to be issued under the Company's employee stock purchase plan were anti-dilutive. Due to their dilutive effect, the calculation of diluted net loss per share for the years ended December 31, 2016 and 2017 does not include the following common stock equivalent shares:

	2016	2017
Preferred Stock	64,165,785	76,440,945
Stock Options	12,106,088	8,368,728
Warrants	271,746	4,699,565
Total	76,543,619	89,509,238

For the years ended December 31, 2016 and 2017, there were no reconciling items between Basic and Diluted loss per share.

In February 2018, the Company received proceeds of $25.6 million in exchange for the corresponding sale of Series D Preferred Stock ("Series D") and related rights offering to new and existing investors. The applicable issue price per share for the Series D preferred stock was $0.59808, subject to adjustment as provided in the certificate of incorporation. In addition, all outstanding convertible notes, plus accrued interest, totaling $28.9 million were converted into Series D preferred stock at the same price per share without a discount. In total, 91,147,482 shares of Series D preferred stock were issued. These shares are also excluded from the per share calculations since they were not issued prior to the end of the year and they are anti-dilutive.

Fair Value of Financial Instruments

The carrying values of cash, accounts receivable, accounts payable and related party receivables at December 31, 2016 and 2017 approximated fair value due to the short maturity of these instruments.

The Company's valuation of financial instruments is based on a three-tiered approach, which requires that fair value measurements be classified and disclosed in one of three tiers. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

Level 1 — Quoted prices in active markets for identical assets or liabilities;

Level 2 — Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly; and

Level 3 — Unobservable inputs for the asset and liability used to measure fair value, to the extent that observable inputs are not available.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The following tables present the placement in the fair value hierarchy of financial instruments measured at fair value as of December 31, 2016 and 2017:

	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Carrying Value
December 31, 2016				
Pacific Western Bank Tranche I note	$ —	$ 2,998,267	$ —	$ 3,000,000
Pacific Western Bank Tranche II note	—	2,995,536	—	3,000,000
UNC promissory note	—	2,216,337	—	2,216,337
Total	$ —	$ 8,210,140	$ —	$ 8,216,337

	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Carrying Value
December 31, 2017				
Pacific Western Bank Tranche I note	$ —	$ 2,512,301	$ —	$ 2,488,572
Pacific Western Bank Tranche II note	—	2,845,194	—	2,820,382
Pacific Western Bank Tranche III note	—	3,793,644	—	3,760,509
UNC promissory note	—	2,257,684	—	2,257,684
Convertible notes	—	—	28,702,268	9,837,984
Warrant liabilities	—	—	2,462,859	2,462,859
Total	$ —	$ 11,408,823	$ 31,165,127	$ 23,627,990

The fair value of debt was measured as the present value of the respective future cash outflows discounted at a current interest rate as of the year-end date, taking into account the remaining term of liabilities.

Convertible Instruments

The Company has utilized various types of financing to fund its business needs, including convertible debt and convertible preferred stock, in some cases with corresponding warrants. The Company considered guidance within FASB ASC 470-20, *Debt with Conversion and Other Options*, ("ASC 470-20"), ASC 480, *Distinguishing Liabilities from Equity* ("ASC 480") and ASC 815, *Derivatives and Hedging* ("ASC 815"), when accounting for the issuance of convertible securities. Additionally, the Company reviews the instruments to determine whether they are freestanding or contain an embedded derivative and, if so, whether they should be classified in permanent equity, mezzanine equity or as a liability at each reporting period until the amount is settled and reclassified into equity.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

When multiple instruments are issued in a single transaction, the Company allocates total proceeds from the transaction among the individual freestanding instruments identified. The allocation is made after identifying all the freestanding instruments and the subsequent measurement basis for those instruments. The subsequent measurement basis determines how the proceeds are allocated. Generally, proceeds are allocated based on one of the following methods:

- Fair value method — The instrument being analyzed is allocated a portion of the proceeds equal to its fair value, with the remaining proceeds allocated to the other instruments as appropriate.
- Relative fair value method — The instrument being analyzed is allocated a portion of the proceeds based on the proportion of its fair value to the sum of the fair values of all the instruments covered in the allocation.
- Residual value method — The instrument being analyzed is allocated the remaining proceeds after an allocation is made to all other instruments covered in the allocation.

Generally, when there are multiple instruments issued in a single transaction that have different subsequent measurement bases, the proceeds from the transaction are first allocated to the instrument that is subsequently measured at fair value (i.e., instruments accounted for as a derivative liabilities) at its issuance date fair value, with the residual proceeds allocated to the instrument not subsequently measured at fair value. In the event both instruments in the transaction are not subsequently measured at fair value (i.e., equity-classified instruments), the proceeds from the transaction are allocated to the freestanding instruments based on their respective fair values, using the relative fair value method.

After the proceeds are allocated to the freestanding instruments, resulting in an initial discount on the host contract, those instruments are further evaluated for embedded features (i.e., conversion options) that require bifurcation and separate accounting as a derivative financial instrument pursuant to ASC 815. Embedded derivatives are initially and subsequently measured at fair value. Under ASC 815, a portion of the proceeds received upon the issuance of the hybrid contract is allocated to the fair value of the derivative.

The Company accounts for convertible instruments in which it is determined that the embedded conversion options should not be bifurcated from their host instruments in accordance with ASC 470-20. Under ASC 470-20, the Company records, when necessary, discounts to convertible notes or convertible preferred stock for the intrinsic value of conversion options embedded in the convertible instruments based upon the differences between the fair value of the underlying common stock at the commitment date of the transaction and the effective conversion price embedded in the convertible instrument, unless limited by the proceeds allocated to such instrument.

Warrant Liabilities

The Company has classified warrants to purchase shares of Series C-1 preferred stock as a liabilities on its Balance Sheets as these warrants were free-standing financial instruments that will require the Company to issue convertible securities upon exercise. The warrants were initially recorded at fair value on date of grant, and they will be subsequently remeasured to fair value at each reporting period. Changes in fair value of the warrants are recognized as a component of other income (expense) in the Statements of Operations and Comprehensive Loss. The Company will continue to adjust the liabilities for changes in fair value at each reporting period until the warrant liabilities are settled. Following an Initial Public Offering ("IPO") and the

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

conversion of preferred stock into common stock, the Company will no longer include the warrant liabilities on the Balance Sheet or recognize changes in their fair value on the Statements of Operations and Comprehensive Loss.

The Company used the Black-Scholes option pricing model, which incorporates assumptions and estimates, to value the preferred stock warrants. The Company assessed these assumptions and estimates on a quarterly basis as additional information impacting the assumptions was obtained. Estimates and assumptions impacting the fair value measurement included the fair value per share of the underlying Series C-1 preferred stock, the remaining contractual term of the warrant, the risk-free interest rate, the expected dividend yield and the expected volatility of the price of the underlying preferred stock. The Company determined the fair value per share of the underlying preferred stock by taking into consideration the most recent sales of its convertible preferred stock, results obtained from third-party valuations and additional factors that were deemed relevant. The Company estimated its expected stock volatility based on the historical volatility of publicly traded peer companies for a term equal to the remaining contractual term of the warrant. The risk-free interest rate was determined by reference to the U.S. Treasury yield curve for time periods approximately equal to the remaining contractual term of the warrant. Expected dividend yield was based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

Embedded Derivatives

Embedded derivatives that are required to be bifurcated from the underlying instrument are accounted for and valued as a separate financial instrument. In conjunction with the Company's Convertible Instruments, embedded derivatives exist associated with the future consummation of a qualified financing event, as defined, and a subsequent discounted conversion of the instrument to capital stock. The embedded derivatives are bifurcated and classified as derivative liabilities on the Balance Sheets and separately adjusted to their fair values at the end of each reporting period. Changes in fair values of the derivative liabilities are recognized as a component of other income (expense) in the Statements of Operations and Comprehensive Loss.

Issuance Costs Related to Equity and Debt

The Company allocates issuance costs between the individual freestanding instruments identified on the same basis as proceeds were allocated. Issuance costs associated with the issuance of stock or equity contracts (i.e., equity-classified warrants and convertible preferred stock) are recorded as a charge against the gross proceeds of the offering. Any issuance costs associated with the issuance of liability-classified warrants are expensed as incurred. Issuance costs associated with the issuance of debt (i.e., convertible debt) is recorded as a direct reduction of the carrying amount of the debt liability, but limited to the notional value of the debt. The Company accounts for debt as liabilities measured at amortized cost and amortizes the resulting debt discount to interest expense using the straight-line method over the expected term of the notes pursuant to ASC 835, *Interest* ("ASC 835"). To the extent that the reduction from issuance costs of the carrying amount of the debt liability would reduce the carrying amount below zero, such excess is recorded as interest expense.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

Income Taxes

The asset and liability method is used in the Company's accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. The Company records a valuation allowance against deferred tax assets when realization of the tax benefit is uncertain.

A valuation allowance is recorded, if necessary, to reduce net deferred taxes to their realizable values if management does not believe it is more likely than not that the net deferred tax assets will be realized.

The Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement.

Recent Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"). The FASB issued ASU 2014-09 to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP. The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes the most current revenue recognition guidance. This guidance was originally effective for annual periods and interim periods within those annual periods beginning after December 15, 2016 and early adoption was not permitted. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606) — Deferral of the Effective Date* ("ASU 2015-14"), which deferred the effective date of the guidance in ASU 2014-09 by one year to December 15, 2017 for interim and annual reporting periods beginning after that date and permitted early adoption of the standard, but not before the original effective date of December 15, 2016. This standard will be effective for the Company for the year ending December 31, 2018. In 2016, the FASB clarified the implementation guidance on principal versus agent, identifying performance obligations, licensing, narrow-scope improvements, practical expedients, and to expedite improvements to 2014-09 by issuing ASU 2016-08, *Revenue from Contracts with Customers (Topic 606) — Principal versus Agent Considerations* ("ASU 2016-08"), ASU 2016-10, *Revenue from Contracts with Customers (Topic 606) — Identifying Performance Obligations and Licensing* ("ASU 2016-10"), ASU 2016-12, *Revenue from Contracts with Customers (Topic 606) — Narrow-Scope Improvements and Practical Expedients* ("ASU 2016-12"), and ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contacts with Customers* ("ASU 2016-20"). The Company will adopt this standard as of January 1, 2018 and will apply the modified retrospective method. Under this adoption method, the Company will record a cumulative adjustment to retained earnings at January 1, 2018 and apply the provisions of the ASU prospectively. The Company believes this ASU will have an impact on, but not limited to, how it identifies performance obligations for its collaborative agreements and accounts for non-refundable milestones and up-front payments. This ASU will also require new comprehensive disclosures about contracts with customers, including the significant judgments the Company has made when applying the ASU. The Company has engaged a third party specialist to assist in determining the impact and application of the ASU and management is in the process of assessing the results. The Company will finalize its accounting assessment and quantitative impact of the adoption during the first quarter of fiscal year 2018, as required.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

In August 2014, the FASB issued ASU 2014-15, *Presentation of Financial Statements — Going Concern* (Subtopic 205-40) in which management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). When management identifies conditions or events that raise substantial doubt about an entity's ability to continue as a going concern, management should assess whether its plans that are intended to mitigate those relevant conditions or events will alleviate the substantial doubt. This update is effective for annual periods ending after December 15, 2016, and early application is permitted for any annual or interim period thereafter. The Company adopted this standard effective as of January 1, 2016. Refer to Note 2 for the related disclosure.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments — Overall (Subtopic 825-10) — Recognition and Measurement of Financial Assets and Financial Liabilities* ("ASU 2016-01"). The provisions of ASU 2016-01 make targeted improvements to enhance the reporting model for financial instruments to provide users of financial statements with more useful information, including certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The guidance is effective for public companies with annual periods and interim periods within those annual periods beginning after December 15, 2017, and is expected to be effective for the Company for the year ending December 31, 2018. The Company will be adopting this standard for the year ending December 31, 2018. The adoption of this standard is not expected to have a material impact on the Company's financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* ("ASU 2016-02"). The provisions of ASU 2016-02 set out the principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for in a similar manner as under existing guidance for operating leases. ASU 2016-02 supersedes the previous lease standard, Topic 840, *Leases*. The guidance is effective for public companies with annual periods and interim periods within those annual periods beginning after December 15, 2018, and is expected to be effective for the Company for the year ending December 31, 2019. The Company is currently evaluating the impact that the implementation of this standard will have on the Company's financial statements.

In March 2016, the FASB issued ASU No. 2016-09, *Stock Compensation* (Topic 718), which includes provisions intended to simplify various aspects related to how share-based payments are accounted for and presented in the financial statements. The standard is effective for annual periods beginning after December 15, 2016. During the first quarter of 2017, the Company adopted this ASU. The key effects of the adoption on the Company's financial statements include that the Company will now recognize windfall tax benefits as deferred tax assets instead of tracking the windfall pool and recording such benefits in equity. Additionally, the Company has elected to continue to estimate forfeitures at the time of grant rather than as they occur. Adoption of this standard did not have a material impact on our financial statements.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

2. Significant Accounting Policies (Continued)

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230) — Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"). The provisions of ASU 2016-15 address eight specific cash flow issues and how those certain cash receipts and cash payments are presented and classified in the statement of cash flows under Topic 230, *Statement of Cash Flows*, and other Topics. The guidance is effective for public companies with annual periods and interim periods within those annual periods beginning after December 15, 2017, with early adoption permitted, and is expected to be effective for the Company for the year ending December 31, 2018. The adoption of this standard is not expected to have a material impact on the Company's financial statements.

In May 2017, the FASB issued ASU 2017-09, *Compensation-Stock Compensation* (Topic 718): Scope of Modification Accounting, which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under the new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. The standard is effective for interim and annual reporting periods beginning after December 15, 2017, with early adoption permitted. The adoption of this standard is not expected to have a material impact on the Company's financial statements.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share* (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception. Part I of this update addresses the complexity of accounting for certain financial instruments with "down round" features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, *Distinguishing Liabilities from Equity*, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable noncontrolling interests. The amendments in Part II of this update do not have an accounting effect. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. The Company is evaluating the effect that ASU 2017-11 will have on its financial statements and related disclosures.

3. Common and Preferred Stock

Authorized Capital

As of December 31, 2017, in connection with the issuances of convertible notes during 2017, the authorized capital was increased to 291,862,657 shares of capital stock, $0.001 par value per share, of which 175,000,000 shares were designated as Class A voting common stock ("Class A"), 330,664 shares were designated as Class B nonvoting common stock ("Class B") and 116,531,993 shares were designated as preferred stock. Of the designated preferred stock, 1,974,430 shares were designated as Series A Preferred Stock ("Series A"), 1,834,862 shares were designated as Series A-1 Preferred Stock ("Series A-1"), 4,620,123 shares were designated as Series B Preferred Stock ("Series B"),

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

3. Common and Preferred Stock (Continued)

17,102,578 shares were designated as Series C Preferred Stock ("Series C") and 91,000,000 shares were designated as Series C-1 Preferred Stock ("Series C-1").

In June 2015, the Board approved an extension of the term of the Liquidia Technologies, Inc. Stock Option Plan (the "2004 Plan") by two additional years and an expansion of the pool of available shares by 5,000,000 shares, of which 3,374,000 were approved for grant to existing management. The Company had reserved a total of 18,299,642 shares of Class A Voting common stock for issuance under the 2004 Plan.

In May 2016, the Board approved a new second stock option plan (the "2016 Plan"). The option pool of shares available to issue under the 2016 Plan was established as 1,400,000 shares. Of this amount, 524,887 shares are available for future stock option grants as of December 31, 2017.

In January and February 2017, the Company entered into a series of Convertible Note and Warrant Purchase Agreements and issued an aggregate total of $11.8 million in principal amount of unsecured convertible promissory notes (the "January and February Notes") bearing interest at a rate of 8% per annum with a maturity date of December 31, 2018 (amended from June 30, 2018 in May 2017). This financing included warrants to purchase a total of 3,698,128 shares of the Company's Series C-1 Preferred Stock. The January and February Notes were issued to current and new stockholders of the Company. Since this transaction contained equity and debt components, a fair value measurement of the financial instruments that represent additional obligations was conducted. The fair value of the warrants and other embedded financial instruments as of the date of issuance of the convertible promissory notes are recorded separately from the underlying convertible notes (see Note 11).

In July 2017, the Company entered into a series of unsecured convertible note agreements of $10.4 million in the aggregate (the "July Notes"). The July Notes bear interest at a rate of 8% per annum with a maturity date of December 31, 2018. Principal plus accrued interest convert into either preferred or common stock at the time of a qualified financing, as defined, at a discount to the share price, depending on the financing. In conjunction with the July Notes, the Company also entered into a commitment with an advisor in the form of a convertible note amounting to $442,356 with terms similar to the related transaction, which is included in the aggregate amount of July Notes.

In November 2017, the Company issued a series of unsecured subordinated convertible notes with an aggregate principal amount of $5.2 million to new investors (the "November Notes"). The November Notes bear interest at a rate of 8% per annum with a maturity date of December 31, 2018. Principal plus accrued interest convert into either preferred or common stock at the time of a qualified financing, as defined, at a discount to the share price, depending on the type of financing.

In February 2018, the Company received proceeds of $25.6 million in exchange for the corresponding sale of Series D Preferred Stock ("Series D") and related rights offering to new and existing investors. The applicable issue price per share for the Series D preferred stock was $0.59808, subject to adjustment as provided in the certificate of incorporation. In addition, all outstanding convertible notes, plus accrued interest, totaling $28.9 million were converted into Series D preferred stock at the same price per share without a discount. In total, 91,147,482 shares of Series D preferred stock were issued. Each share of Series D preferred stock is voting and is convertible at any time into a share of Class A voting common stock with such conversion ratio subject to future adjustment. Conversion is automatic upon a qualified financing, as defined. Each series of preferred stock has anti-dilution protection in the event of a dilutive

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

3. Common and Preferred Stock (Continued)

issuance, as defined in the certificate of incorporation. The Series D stock bears an 8% per annum noncumulative dividend ($0.0478 per Series D preferred share) when and if declared. The Series D has a liquidation preference equal to the aggregate of the proceeds and the note conversions, or $54.5 million plus accrued but unpaid dividends, after which holders of Series D participate with all other stockholders in the remainder of liquidation proceeds on an as converted basis. The Series D is senior to all other series of preferred stock.

In conjunction with the Series D financing, the authorized capital was increased such that following this financing, the Company is authorized to issue 449,540,280 shares of capital stock, $0.001 par value per share, of which 265,000,000 shares are designated as Class A, 330,664 shares are designated as Class B and 184,209,616 are designated as preferred stock, of which 1,974,430 shares are designated as Series A, 1,834,862 shares are designated as Series A-1, 4,620,123 shares are designated as Series B, 17,102,578 shares are designated as Series C, 21,254,306 shares are designated as Series C-1, and 137,423,317 shares are designated as Series D.

Common Stock

Upon any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company, the holders of the Class A voting common stock shall be entitled to receive that portion of the remaining funds to be distributed to the stockholders, subject to the liquidation preferences of the preferred stock, on a pro-rata basis with the holders of the Class B nonvoting common stock. Such funds shall be paid to the holders of the Class A voting common stock and Class B nonvoting common stock on the basis of the number of shares so held by each of them.

The Class B nonvoting common stock has mandatory conversion provisions (one-for-one) into Class A voting common stock, as declared by the Board of Directors and approved by the holders of a majority of the then issued and outstanding shares of Class A voting common stock, or immediately prior to an IPO.

Preferred Stock

The following summarizes the significant terms of existing Preferred Stock as of December 31, 2017:

Each share of preferred stock is voting and is convertible at any time into voting common stock at the applicable conversion ratio. Conversion is automatic upon the earlier of a qualified financing, such as an IPO of at least $35 million and a price per share that exceeds $0.71767 pursuant to a registration statement on Form S-1 under the Securities Act of 1933, as amended, or upon the vote of a majority of the outstanding Series C and C-1 preferred stock on an as-if-converted basis to Class A common stock. Each series of preferred stock has anti-dilution protection in the event of a dilutive issuance, as defined in the certificate of incorporation. As a result of prior anti-dilution adjustments, the conversion ratio for the Series A, Series A-1, Series B, Series C and Series C-1 preferred stock was adjusted to 1.4814-for-1, 2.1351-for-1, 2.1913-for-1, 2.0058-for-1, and 1.0942-for-1, respectively, as of December 31, 2017. As a result of the Series D financing in February 2018, the conversion ratios were modified for anti-dilution adjustments such that the conversion ratio for the Series A, Series A-1, Series B, Series C and Series C-1 preferred stock was adjusted to 1.6087 for 1, 2.3185 for 1, 2.3795 for 1, 2.1781 for 1, and 1.1882-for-1, respectively. The conversion ratio for Series D was 1 for 1 at the time of closing.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

3. Common and Preferred Stock (Continued)

Each series of preferred stock bears an 8% per annum noncumulative dividend when and if declared, or $0.1064 per Series A preferred share, $0.2616 per Series A-1 preferred share, $0.2847 per Series B preferred share, $0.1169 per Series C preferred share, $0.0638 per Series C-1 preferred share, and $0.0478 per Series D preferred share. Through December 31, 2017, no dividends have been declared on any preferred stock nor have any been accrued. Each series of preferred stock has a liquidation preference to the holders of common stock equal to the original purchase price plus declared but unpaid dividends. The Series D preferred stock is senior to all other series of preferred stock. The Series C and C-1 preferred stock, on a pari passu basis, are senior to the Series B, Series A and Series A-1 preferred stock. The Series B preferred stock is senior to the Series A and Series A-1 preferred stock, and the Series A-1 preferred stock is senior to the Series A preferred stock. Following payment of the liquidation preference, remaining proceeds are shared ratably between the common stockholders and the Series A, Series A-1, Series B, Series C and Series C-1 preferred stockholders on an as-converted basis until the holders of the Series A, Series A-1, Series B, Series C and Series C-1 preferred stockholders have received two times the applicable issue price plus accrued but unpaid dividends. The applicable issue price for the Series A, Series A-1, Series B, Series C and Series C-1 preferred stock is $1.33, $3.27, $3.558, $1.46177 and $0.79744, respectively, subject to adjustment as defined in the certificate of incorporation. The aggregate liquidation preferences of the Series A, Series A-1, Series B, Series C and Series C-1 preferred stock totaled $2,625,992, $6,000,000, $16,000,000, $25,000,035 and $14,000,000 at December 31, 2017, respectively. The liquidation preference of Series D is $54,513,495.

Warrants

In connection with historical private placement offerings, the Company issued warrants to purchase its preferred stock with an exercise term of ten years from the date of issuance. Pursuant to the terms of the warrants, upon the conversion of the preferred stock underlying the warrant into common stock, the warrants automatically become exercisable for common stock based upon the conversion ratio of the underlying preferred stock. At December 31, 2017, the Company had 123,215 share purchase warrants outstanding for Series B Preferred stock with an exercise price of $3.56 per share expiring March 28, 2018.

The warrants for 123,215 shares of Series B preferred stock convert into warrants for 293,951 shares of Class A common stock at the same time as all outstanding Series B preferred shares have been converted to Class A common stock. During the year ended December 31, 2017, 20,000 warrants were exercised for the purchase of common stock for total proceeds of $10,000. The Company did not record any stock-based compensation expense pertaining to the warrants during the years ended December 31, 2016 and 2017. All outstanding warrants are currently exercisable.

The January and February Notes financing included warrants to purchase a total of 3,698,128 shares of the Company's Series C-1 preferred stock at an initial exercise price of $.79744 per share, subject to adjustments related to achieving future financing milestones, as defined. As of December 31, 2017, the warrants for 3,698,128 shares of Series C-1 preferred stock convert into warrants for 4,405,614 shares of Class A common stock at the same time as all outstanding Series C-1 preferred shares have been converted to Class A common stock. In August 2017, as a result of the financing milestones not being achieved, the exercise price of the Series C-1 warrants was reduced to $0.001 per share.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

3. Common and Preferred Stock (Continued)

The Series C-1 and Series B convertible preferred stock will automatically convert into common stock immediately prior to the closing of an IPO of the Company's stock, if such warrants have not previously expired.

4. Stock Options

In November 2004, the Board of Directors adopted, and the stockholders approved, the Plan to create an additional incentive for employees, directors, consultants and advisors. The Plan authorized the issuance of stock options to be granted as incentive stock options along with nonqualified stock options, restricted stock and other stock-based awards. The Board of Directors determines the exercise price of all options granted. The options vest based on terms provided for in the individual stock option agreements issued pursuant to the 2004 Plan. Options generally vest on a monthly basis over a period of up to 4 years and have a contractual life of ten years. The 2016 Plan is the successor to the 2004 Plan. The terms of the 2016 Plan are similar to the 2004 Plan. The 2016 Plan provides for accelerated vesting under certain change of control transactions.

Determining the appropriate fair value model and the related assumptions requires judgment. The fair value of each option grant is estimated using a Black-Scholes option pricing model. The following table summarizes the assumptions used for estimating the fair value of stock options granted during:

	Year Ended December 31,	
	2016	2017
Expected dividend yield	0%	0%
Risk-free interest rate	1.34% - 2.013%	1.344% - 1.988%
Volatility	72% - 98%	69% - 100%
Expected life	6.25 years	6.25 years
Weighted-average fair value per share	$0.29	$0.83

The Company considers many factors when estimating expected forfeitures, including the employee or consultant class and historical experience. The Company does not maintain an internal market for its shares, and its shares are not traded privately or publicly. Therefore, the Company estimates volatility based upon the identification of similar public entities for which option price information is available to consider the historical, expected or implied volatility of those entities' share prices in estimating the Company's expected volatility. The expected term of options and warrants granted represents the period that options and warrants granted are expected to be outstanding. The risk-free interest rate for periods within the contractual life of the option and warrant is based on the yield of the U.S. Treasury securities at the time of grant. The Company amortizes the fair value, net of estimated forfeitures, over the remaining vesting term on a straight-line basis.

The weighted-average grant date price per share was $0.40 and $1.21 per share for the shares issued during the years ended December 31, 2016 and 2017, respectively.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

4. Stock Options (Continued)

The intrinsic value of options exercised was $592,521 and $222,172 for the years ended December 31, 2016 and 2017, respectively. At December 31, 2017, the intrinsic value of options and warrants outstanding and exercisable was $655,709. The weighted average remaining contractual term of options and warrants outstanding and exercisable is 5.89 years as of December 31, 2017.

The following table summarizes stock option activity under the 2004 Plan and the 2016 Plan:

	Shares Available for Issuance	Options Outstanding	Weighted Average Exercise Price
Outstanding at December 31, 2015	716,040	14,275,613	$ 0.23
Shares reserved for future issuance	1,149,475	—	—
Granted	(1,513,373)	1,513,373	$ 0.40
Exercised	—	(3,123,153)	$ 0.16
Cancelled/expired	409,745	(409,745)	$ 0.28
Outstanding at December 31, 2016	761,887	12,256,088	$ 0.26
Shares reserved for future issuance	—	—	—
Granted	(237,000)	237,000	$ 1.21
Exercised	—	(255,268)	$ 0.34
Cancelled/expired	—	(991,835)	$ 0.13
Outstanding at December 31, 2017	524,887	11,245,985	$ 0.27

The following summarizes certain information about stock options vested and expected to vest as of December 31, 2017:

	Number of Options	Weighted-Average Remaining Contractual Life (In Years)	Weighted-Average Exercise Price
Outstanding and expected to vest	10,714,531	5.89	$ 0.27
Vested and exercisable	8,459,019	5.03	$ 0.27

During the year ended December 31, 2016, 3,123,153 stock options were exercised for the purchase of common stock for total proceeds of $500,468. The intrinsic value for the options exercised approximated $592,521. During the year ended December 31, 2017, 255,268 stock options were exercised for the purchase of common stock for total proceeds of $86,703. The intrinsic value for the options exercised was $222,172.

During 2016 and 2017, stock-based compensation expense for employee stock option awards totaled $347,444 and $514,092, respectively. As of December 31, 2017, there was $968,372 of total unrecognized compensation cost related to non-vested stock option grants, which is expected to be recognized over a weighted-average period of 1.60 years.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

5. License Agreements

Liquidia performs research under a license agreement with the UNC as amended to date, ("UNC Letter Agreement"). As part of the UNC Letter Agreement, Liquidia holds an exclusive license to certain research and development technologies and processes in various stages of patent pursuit, for use in its research and development and commercial activities, with a term until the expiration date of the last to expire patent subject to the UNC Letter Agreement, subject to industry standard diligence milestones. Under the UNC Letter Agreement, Liquidia is obligated to pay UNC royalties equal to a low single-digit percentage of all net sales of Liquidia drug products whose manufacture, use or sale includes any use of the technology or patent rights covered by the UNC Letter Agreement. Liquidia may grant sublicenses of UNC licensed intellectual property in return for specified payments based on a percentage of any fee, royalty or other consideration received.

In connection with the development and collaboration agreements (see Note 6) entered into with GSK in June 2012, Liquidia paid sublicense fees to UNC and amortized each into research and development expense over the period of specific performance with GSK. Also in connection with that sublicense fee, Liquidia agreed to issue $1,200,000 of Series C-1 preferred shares to UNC under the same terms provided to other Series C-1 holders and an unsecured promissory note for $600,000. Refer to Note 11 for additional details on the unsecured promissory note.

In 2012 and 2015, GSK Vaccines and GSK Inhaled made up-front payments to the Company of $14,000,000 and $20,000,000 combined, respectively. On such payments, the Company incurred sublicense fees to UNC of $2,800,000 and $2,500,000, respectively, which are being amortized into Cost of Sales in the accompanying Statements of Operations and Comprehensive Loss on a straight-line basis over the corresponding periods of revenue recognition of the related payments. As of December 31, 2016, the balances of these unamortized fees included in current and long-term prepaid expenses and other assets was $319,758 and $872,488, respectively. As of December 31, 2017, the balances of these unamortized fees included in current and long term prepaid expenses and other assets was $319,758 and $552,730, respectively.

In June 2016, Liquidia entered into an amendment to the UNC Letter Agreement, whereby the date for completion of a milestone requiring launch of a commercial product was extended from January 1, 2018 to December 31, 2020. In addition, a 2016 letter agreement was accepted by UNC that detailed Liquidia's efforts in satisfying the obligations of two milestones related to developing and commercializing the licensed technology under the UNC Letter Agreement as of December 31, 2015, and accepted such efforts as satisfying the two milestones dated January 1, 2016. The 2016 letter agreement also included extending the maturity date of the promissory note (see Note 11) to December 31, 2017 and payment of an additional $1,500,000 fee in exchange for modifying these progress milestones required under the UNC Letter Agreement. Even though this amount was added to the outstanding balance of the promissory note in 2016, for the year ended December 31, 2015, the Company accrued the $1,500,000 in research and development expense. In December 2017, the Company executed an amendment to the UNC Letter Agreement that extends the maturity date of the promissory note from December 31, 2017 to June 30, 2018.

6. Revenue From License and Collaboration Agreements

The Company's collaboration and licensing agreements provide for multiple deliverables to be delivered by the Company and include a license to the Company's technology in a particular field of study, participation

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

6. Revenue From License and Collaboration Agreements (Continued)

in collaboration committees, performance of certain research and development services and obligations for certain manufacturing services. Up-front consideration related to the licensing of technology is recognized over the estimated period of the Company's substantive performance obligations.

The Company recognizes the payments received for research and development services in the period when the services are performed and collection is reasonably assured. Royalties related to product sales will be recognized when earned since payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

The following tables summarize the amounts recorded as revenue in the Statements of Operations and Comprehensive Loss for each significant collaboration and licensing agreement for the years ended December 31, 2016 and 2017:

	2016 Revenue Recognized From			
	Non-Refundable Payments			
	Milestones	Up-front Payments	Research and Development Services	Total
GSK Vaccines	$ —	$ 1,538,465	$ 1,347,369	$ 2,885,834
GSK Inhaled	3,000,000	3,000,000	2,941,592	8,941,592
Gates Foundation	—	145,631	—	145,631
Other	—	110,868	1,133,064	1,243,932
Total	$ 3,000,000	$ 4,794,964	$ 5,422,025	$ 13,216,989

	2017 Revenue Recognized From			
	Non-Refundable Payments			
	Milestones	Up-front Payments	Research and Development Services	Total
GSK Vaccines	$ —	$ —	$ —	$ —
GSK Inhaled	—	3,000,000	3,114,311	6,114,311
Gates Foundation	—	145,631	—	145,631
Other	—	197,585	800,596	998,181
Total	$ —	$ 3,343,216	$ 3,914,907	$ 7,258,123

GSK Vaccines

In June 2012, the Company entered into a Development and Collaboration Agreement (the "Collaboration Agreement") with GSK Vaccines, which is based in Belgium. In connection with the Collaboration

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

6. Revenue From License and Collaboration Agreements (Continued)

Agreement, GSK Vaccines received an exclusive worldwide license of Liquidia's rights to certain substrate technology in a specific biotechnological field. In addition, the Collaboration Agreement included material supply provisions for which the Company received reimbursement payments for research and development services provided and manufacturing services for Company materials provided to GSK Vaccines during the Collaboration Agreement. The initial term of the Collaboration Agreement was three years.

In March 2015, GSK Vaccines extended the Collaboration Agreement through April 30, 2016 for up-front consideration to Liquidia of $5,000,000. Also during 2014 and 2015, the Company entered into other agreements under the collaboration, primarily for research services. In April 2016, GSK Vaccines did not extend this collaboration or exercise their option for a license.

GSK Inhaled

In June 2012, the Company entered into a collaboration, as well as a license option and equity agreement, with GSK Inhaled, which is based in the United Kingdom. The agreements included up-front payments for option license rights to certain life science fields, research and development and manufacturing funding amounting to $14,000,000 for up to three years, and key license terms, including extension and license fees, milestone payments and royalties on product sales. The Company recognized the non-refundable up-front fees into revenue over three years, in line with the term of the original agreement. In 2012, in connection with GSK's interest in the Company's technology, GSK invested $3,799,999 in a Series C-1 preferred stock financing.

In September 2015, GSK Inhaled exercised the option to permanently license the technology for a non-refundable payment to the Company of $15,000,000. The Company is recognizing the non-refundable up-front fees into revenue over five years based on the estimated development period. Pursuant to the license provisions of the collaboration agreement, GSK Inhaled is potentially required to pay Liquidia for certain milestones reached in the aggregate maximum amount of $158,000,000, and GSK Inhaled is required to pay Liquidia tiered royalties on the worldwide sales of the licensed products at percentages in the mid-single digits, based on net revenues from nonproprietary and proprietary products. Also during 2014 and 2015, the Company entered into other agreements under this collaboration, primarily for research services.

In December 2017, GSK Inhaled made the Company aware of its modified plans under the GSK Inhaled Collaboration and Option Agreement, and the reduced requirement and budget for Liquidia support, commensurate with its research and development plans related to PRINT for 2018. As a result, in December 2017, the Company committed to a plan to reduce its workforce which was communicated to the workforce in January 2018. The expense resulting from this plan is approximately $400,000, for which $0 was accrued in the Balance Sheets as of December 31, 2017.

Gates Foundation

In February 2011, the Company entered into a collaboration agreement with the Bill & Melinda Gates Foundation, primarily for research services related to developing vaccines targeted at developing markets. The Company is recognizing the up-front fee into revenue over the 6.75 year term of the agreement.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

6. Revenue From License and Collaboration Agreements (Continued)

Other:

G&W Laboratories

In June 2016, the Company entered into a development and license agreement with G&W Laboratories to develop multiple products for topical delivery in dermatology using the Company's PRINT technology. The first non-refundable up-front fee of $1,000,000 was received in June 2016. This up-front fee was deferred and is being amortized into revenue over a period of five years, expected to correspond with the collaboration term. Research and development services commenced in July 2016 on the first program pursuant to this agreement.

Governmental Grant Awards

Income received from governmental grant awards are recognized as revenue under a cost-plus-fixed fee ("cost-plus") contract which provides for payment of a negotiated fee that is fixed at the inception of the contract. Grants are typically multi-year and the fees may be changed as a result of changes in the scope of work to be performed. Revenue on cost-plus contracts are recognized as costs are incurred at amounts billable to the organization. Revenue from governmental grant awards for the years ended December 31, 2016 and 2017 was $472,363 and $235,858, respectively.

7. Property, Plant and Equipment

Property, plant and equipment consisted of the following at December 31, 2016 and 2017:

	2016	2017
Lab equipment	$ 3,384,149	$ 3,847,546
Grant equipment	1,115,044	1,143,701
Office equipment	111,698	123,655
Furniture and fixtures	205,051	205,051
Computer equipment	637,327	677,569
Leasehold improvements	5,428,860	7,218,687
Construction-in-progress	337,255	2,830,407
Total property, plant and equipment	11,219,384	16,046,616
Accumulated depreciation	(6,871,673)	(7,803,604)
Property, plant and equipment, net	$ 4,347,711	$ 8,243,012

The Company recorded depreciation expense of $651,560 and $931,931, respectively, for the years ended December 31, 2016 and 2017. Maintenance and repairs are expensed as incurred and were $203,466 and $244,885, respectively, for the years ended December 31, 2016 and 2017.

During 2015, the Company commenced construction on improvement within its current facilities of approximately $2,400,000, which included both facility construction and implementation of specialized lab equipment. The following table details the activity of Construction-in-Progress ("CIP") in 2016 and 2017

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

7. Property, Plant and Equipment (Continued)

and the associated transfer to Leasehold Improvements and Lab Equipment when the assets were placed in service:

	Leasehold Improvements	Lab Equipment	Total
Balance as of December 31, 2015	$ 237,407	$ —	$ 237,407
Add: Purchases related to CIP	2,484,711	99,047	2,583,758
Less: Transfer due to placed in service	(2,384,863)	(99,047)	(2,483,910)
Balance as of December 31, 2016	337,255	—	337,255
Add: Purchases related to CIP	3,108,809	812,205	3,921,014
Less: Transfer due to placed in service	(1,427,862)	—	(1,427,862)
Balance as of December 31, 2017	$ 2,018,202	$ 812,205	$ 2,830,407

The Construction in Progress balance includes $76,844 and $57,625 of capitalized interest costs for the years ended December 31, 2016 and 2017, respectively.

In December 2016, the Company executed an agreement with a commercial manufacturer to build a PRINT Particle Fabrication Line for the production of cGMP particles for Pharmaceutical Products. The cost is expected to be approximately $1,500,000. The Company financed this transaction with a 3rd party vendor ("Lessor") capital lease. The Lessor is making scheduled payments to the manufacturer per the payment schedule in the agreement as the asset is built. The Lessor charges the Company a monthly lease rate on the scheduled payments made to the manufacturer until the asset is completed and placed in service. The lease commenced upon completion of construction on March 1, 2018.

In accordance with ASC 840, *Leases*, for build-to-suit arrangements where the Company is involved in the construction of an asset prior to the commencement of the lease or takes some level of construction risk, the Company is considered the accounting owner of the assets during the construction period. Accordingly, during construction activities, the Company recorded a Construction in progress asset within Property, plant and equipment and a corresponding deferred financing obligation liability for contributions by the lessor toward construction. Upon completion of the construction, since the lease met "sale-leaseback" criteria, the Company removed the asset and related financial obligation from the Balance Sheets and treated the equipment lease as a capital lease. As of December 31, 2017, $1,341,810 for a build-to-suit asset is included in Property, plant and equipment, net, and the corresponding financial obligation of $1,341,810 in deferred financing obligation in the accompanying Balance Sheets.

8. Income Taxes

No provision for federal and state income tax expense has been recorded for the years ended December 31, 2016 and 2017 due to the valuation allowance recorded against the net deferred tax asset and recurring losses.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

8. Income Taxes (Continued)

On December 22, 2017, the Tax Cuts and Jobs Act (the "TCJA") was enacted into law. This new law includes significant changes to the U.S. corporate income tax system, including a permanent reduction in the corporate income tax rate from 35% to 21%, limitations on the deductibility of interest expense and executive compensation and the transition of U.S. international taxation from a worldwide tax system to a territorial tax system. The TCJA also limits interest expense deductions to 30% of taxable income before interest, depreciation and amortization from 2018 to 2021 and then taxable income before interest thereafter. The TCJA permits disallowed interest expense to be carried forward for five years. The Company has calculated its best estimate of the impact of the TCJA in its year-end income tax provision in accordance with its understanding of the TCJA and guidance available at the time. The overall impact of the TCJA resulted in a decrease to the deferred tax assets and a corresponding decrease to the valuation allowance of $14.1 million. Using the guidance issued by the SEC staff in Staff Accounting Bulletin No. 118, the Company expects to complete the accounting for the TCJA when the 2017 U.S. federal income tax return is filed in 2018.

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows at December 31, 2016 and 2017:

	2016	2017
Non-current deferred income tax assets:		
Tax loss carryforwards	$ 24,330,103	$ 22,274,378
Deferred revenue	4,022,192	2,098,191
Research and development credits	2,382,047	2,382,047
Stock-based compensation	414,409	277,948
Bad debt	17,309	11,053
Compensation	87,658	9,766
Fixed assets	76,545	63,570
Patent amortization	180,734	106,622
Other	349,132	768,936
Valuation allowance	(31,860,129)	(27,992,511)
Total non-current deferred income tax assets	$ —	$ —

At December 31, 2016 and 2017, the Company established a full valuation allowance against its net deferred tax assets since, at the time, the Company could not assert that it was more likely than not that its deferred tax assets would be realized. As a result, there was an increase in the valuation allowance in 2016 of $5,267,135 and a decrease in 2017 of $3,934,784.

At December 31, 2017, the Company had federal and state income tax loss carryforwards of $96,856,855 and $97,946,266, respectively, which begin to expire in 2027 for federal purposes and in 2022 for state

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

8. Income Taxes (Continued)

purposes. The utilization of the loss carryforwards to reduce future income taxes will depend on the Company's ability to generate sufficient taxable income prior to the expiration of the loss carryforwards.

The Internal Revenue Code of 1986, as amended, contains provisions which limit the ability to utilize the net operating loss carryforwards in the case of certain events, including significant changes in ownership interests. If the Company's net operating loss carryforwards are limited, and the Company has taxable income which exceeds the permissible yearly net operating loss carryforwards, the Company would incur a federal income tax liability even though net operating loss carryforwards would be available in future years.

The reasons for the difference between actual income tax expense for the years ended December 31, 2016 and 2017 and the amount computed by applying the statutory federal income tax rate to income before income tax are as follows:

	2016		2017	
	Amount	% of Pretax Earnings	Amount	% of Pretax Earnings
Income tax benefit at statutory rate	$ (5,417,479)	34.0%	$ (9,912,442)	34.0%
State income taxes, net of federal tax benefit	(314,219)	2.0	(581,901)	2.0%
Non-deductible expenses	2,616	(0.1)	12,757	(0.1)%
Stock-based compensation	83,957	(0.5)	153,033	(0.5)%
Non-deductible interest expense	—	—	3,795,060	(13.0)%
Derivative and warrant fair value adjustments	—	—	(4,040,646)	13.9%
Change in federal rate	—	—	14,113,550	(48.4)%
Change in state rate	442,782	(2.8)	371,138	(1.3)%
Other	(64,792)	0.4	24,235	(0.1)%
Change in valuation allowance	5,267,135	(33.0)	(3,934,784)	13.5%
Provision for income taxes	$ —	0.0%	$ —	0.0%

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. As of December 31, 2017, the Company had no unrecognized tax benefits. The Company's policy for recording interest and penalties related to uncertain tax provisions is to record them as a component of the provision for income taxes. The Company did not have any accrued interest or penalties associated with any unrecognized tax positions as of December 31, 2016 and 2017, and there were no such interest or penalties recognized during the years ended December 31, 2016 and 2017.

The Company has all tax years open to examination by federal tax and state tax jurisdictions. No income tax returns are currently under examination by taxing authorities.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

9. Related-Party Transactions

Envisia

Through June 2016, Liquidia was party to shared service agreements with Envisia and LQ3, whereby they shared facilities, patent costs, management services and manufacturing in exchange for monetary consideration.

For shared services provided by Liquidia to Envisia, Liquidia recorded the following as a reduction of Research and Development Expenses in the accompanying Statements of Operations and Comprehensive Loss for the years ended December 31, 2016 and 2017:

- Facilities shared services of $462,000 and $0, respectively; and
- Sharing of patent costs of $152,893 and $105,623, respectively.

In 2015, Liquidia entered into custom manufacturing agreements with Envisia to provide cGMP material. Revenue is recognized as costs are incurred at amounts billable to the organization. Revenue recognized by Liquidia under these agreements totaled $172,358 and $0 for the years ended December 31, 2016 and 2017, respectively.

In May 2016, net shared service costs that remained unpaid by Envisia at the time were converted into a promissory note with principal amount of $985,594, bearing interest at the rate of 5.00% per annum that was recorded as a Note Receivable. Principal and interest payments were scheduled to be paid in eight equal monthly installments, maturing on December 31, 2016.

Full payment of the promissory note was received in August 2016, and accordingly the Company issued a full release and discharge of the note.

Liquidia had a total net receivable from Envisia of $49,783 and $0 as of December 31, 2016 and 2017, respectively.

In May 2015, the license related to the field of dermatology and articular was purchased back by the Company from Envisia in exchange for 50,000 shares of its Envisia common stock. The purchase price (license consideration) of 50,000 shares of Envisia common stock was based upon third-party appraisals of the value of the Envisia common stock at the transaction date.

In March 2017, the license related to the Otic field, along with other intellectual property rights, as defined, was purchased back by the Company from Envisia in exchange for 75,000 shares of its Envisia common stock.

LQ3

Liquidia charged LQ3 through February 28, 2016 for facilities shared services of $10,400, which were recorded as a reduction of Research and Development Expenses in the accompanying Statements of Operations and Comprehensive Loss.

Liquidia did not have any receivable or payable balances with LQ3 as of December 31, 2016 and 2017.

Note Receivable from Related Party

In September 2016, the Company's Chief Executive Officer entered into a loan agreement with the Company to finance the exercise of stock options to purchase 500,000 shares for $94,271, with a maturity date upon the earlier of (i) immediately prior to the Company's public filing of a prospectus or other offering document relating to an IPO of securities or (ii) September 19, 2017. Interest accrues at 1.00% per annum. This loan receivable was recorded in the Company's 2016 Balance Sheet at that date as a $55,000

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

9. Related-Party Transactions (Continued)

offset to stockholders' equity and $39,534 within related party receivables. The note receivable was repaid in full in 2017.

10. Commitments and Contingencies

Operating Leases

The Company conducts its operations from leased facilities in Morrisville, North Carolina, the leases for which expire in 2022. In June 2007, the Company entered into an 84-month operating lease agreement, commencing in November 2007, for general office, laboratory, research and development and light manufacturing space. The lease agreements require the Company to pay property taxes, insurance, common area expenses and maintenance costs.

In November 2014 and November 2015, the Company executed the first and second extension period clauses, respectively, resulting in additional months to the lease for the related premises extending until October 2022. As part of these extensions, the Company received tenant allowances of $228,973 and $392,020, respectively, for expansion of laboratory and office space.

In January 2017, the Company signed a second extension to the lease of its primary building for an additional 48 months and expiring October 31, 2026. A tenant allowance of approximately $2,000,000 was also made available for use to help fund the expansion and build out of the primary building. This allowance was fully utilized as of December 31, 2017.

These allowance amounts were recorded as a long-term deferred rent liability and amortized as a reduction in rent expense over the remaining term of the lease. The balance of all unamortized deferred rent and allowances totaled $665,817 and $2,881,180 as of December 31, 2016 and 2017, respectively.

The Company also leases copier equipment under an operating lease, which expires in 2019.

As of December 31, 2017, future minimum lease payments under operating leases having initial or remaining non-cancelable lease terms in excess of one year were as follows:

2018	$	968,464
2019		994,408
2020		1,023,949
2021		1,054,558
2022		1,073,086
Therafter		4,159,141
Total	$	9,273,606

Rent expense, including other facility expenses, for the years ended December 31, 2016 and 2017 was $705,107 and $1,046,721, respectively.

In March 2012, the Company entered into an agreement, as amended, with Chasm Technologies, Inc. for manufacturing consulting services related to the Company's manufacturing capabilities during the term of the agreement. As future contingent consideration under the agreement, the Company agreed to pay $400,000 related to the timing of the Company's first Phase 3 clinical trial which commenced in December

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

10. Commitments and Contingencies (Continued)

2017. The consideration of $400,000 is comprised of initial consideration of $20,000 paid in 2017, $80,000 to be paid upon first dosing of the first patient in the Phase 3 clinical trial, and $300,000 due no later than December 31, 2018. In addition, the Company also agreed to pay future contingent royalties on net sales totaling no more than $1,500,000. As of December 31, 2016 and 2017, $0 and $380,000, respectively, was accrued and is included in Accrued Expenses in the accompanying Balance Sheets.

Capital Leases

The Company leases specialized lab equipment under leases classified as capital leases. The related capitalized assets are amortized on a straight-line basis over the estimated useful life of the asset. The interest rates related to these lease obligations range from 0.2% to 12.2%. The following table shows the future minimum lease payments under the capital leases by year and the present value of the minimum lease payments:

Year ending December 31:	
2018	$ 489,022
2019	313,856
2020	215,841
Thereafter	—
Total minimum lease payments	1,018,719
Less: Amount representing interest	(38,296)
Present value of minimum lease payments	$ 980,423

The net book value of assets under capital leases was $915,300 as of December 31, 2017. At December 31, 2017, the present value of minimum lease payments due within one year was $489,022.

Other

In June 2017, the Company was served with a lawsuit filed by Allergan, Inc., in the United States District Court for the Central District of California, naming Liquidia and Envisia as defendants. The lawsuit alleged that Envisia's development efforts of one of its product candidates misused Allergan confidential information. The Company's involvement results from its possibly related activities that occurred prior to November 8, 2013, the date of formation of Envisia. In October 2017, the Company settled the litigation with Allergan, Inc., with no financial payments due from the Company or other consideration that materially affects the operation of the Company. There was no accrual for this in the Balance Sheets as of December 31, 2016 and 2017.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

11. Long-Term Debt

Long-term debt consisted of the following as of:

	Maturity Date	December 31, 2016	December 31, 2017
Pacific Western Bank Tranche I note	December 8, 2019	$ 2,974,240	2,488,572
Pacific Western Bank Tranche II note	October 10, 2020	2,974,240	2,820,382
Pacific Western Bank Tranche III note	October 10, 2020	—	3,760,509
UNC promissory note	June 30, 2018	2,165,180	2,257,684
Convertible notes, net of discounts	December 31, 2018	—	9,837,984
Less current portion		(2,898,101)	(15,608,349)
Long-term debt, less current portion		$ 5,215,559	$ 5,556,782

UNC Promissory Note

In September 2012, the Company issued an unsecured promissory note with principal amount of $600,000 as a sublicense fee to UNC, with principal and interest due in full on September 1, 2016, bearing an interest rate equal to the one-year LIBOR plus 2%, compounding annually. In June 2016, the Company (as licensee) negotiated modifications to its license agreement with UNC in exchange for an increase of $1,500,000 to the note payable and extension of the maturity to December 31, 2017. As the Company had previously recorded a contingent liability of $1,500,000 related to this license, the increase to the note payable was recorded as a reduction to the accrued expense balance at this time. In addition, the initial note of $600,000 plus accrued interest were extended under the same terms. The combined note payable interest rate was increased by 1%. The balance of the promissory note at December 31, 2016 and 2017 was $2,165,180 and $2,257,684, respectively. In December 2017, the Company executed an amendment to the UNC Letter Agreement that extends the maturity date of the promissory note from December 31, 2017 to June 30, 2018. All other terms and conditions of the Letter Agreement continue in force through the new maturity date.

Pacific Western Bank

In January 2016, the Company entered into a Loan and Security Agreement ("LSA") with Pacific Western Bank ("Pacific Western"). The LSA provides that the Company may borrow up to $3,000,000 in a term loan ("Term Loan") to supplement working capital and finance facility expansion and capital equipment purchases. The Term Loan is collateralized by a lien on all assets of the Company that are not otherwise encumbered, including a negative pledge on intellectual property prohibiting its sale without the bank's consent. The Company is also obligated to comply with various other customary covenants, including, among other things, restrictions on its ability to dispose of assets, replace or suffer the departure of the CEO or CFO without delivering 10 days' prior written notification to the bank, suffer a change on the Board of Directors which would result in the failure of at least one partner of either New Enterprise Associates or Canaan Partners or their respective affiliates to serve as a voting member, make acquisitions, be acquired, incur indebtedness, grant liens, make distributions to its stockholders, make investments, enter into certain transactions with affiliates or pay down subordinated debt, subject to specified exceptions. Amounts

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

11. Long-Term Debt (Continued)

borrowed under the Term Loan may be repaid at any time without penalty or premium. The Term Loan was interest-only through July 6, 2017, followed by an amortization period of 30 months of equal monthly payments of principal plus interest, beginning on August 6, 2017 and continuing on the same day of each month thereafter until paid in full. Any amounts borrowed under the Term Loan bore interest at 3.75% during the initial 18-month interest-only period. Following the interest-only period, the interest rate increased to 5.00%, which is fixed for the duration of the loan. At closing, the Company was granted availability of the full $3,000,000, later designated as Tranche I of the Term Loan, with proceed disbursements in the minimum principal amount of $250,000 per draw. The Tranche I loan fully matures and expires when the final payment is made on January 6, 2020.

In October 2016, the Company amended the Term Loan ("Second Amendment") to (1) increase the initial loan amount to $10,000,000 by providing a second Term Loan of $3,000,000 ("Tranche II") and a third Term Loan of $4,000,000 ("Tranche III"); and (2) amend a section of the LSA regarding incurred indebtedness. The additional term loans are both subject to the same terms and conditions as the original Term Loan under the LSA. With the Second Amendment, new covenants were enacted requiring the Company to (1) receive proceeds from a sale or issuance of equity by December 31, 2016, which was achieved; (2) file a new clinical trial authorization by December 31, 2016, which was achieved; and (3) agree to set future covenants in future amendments after achievement of the aforementioned milestones. Pursuant to the Second Amendment, Tranche II and Tranche III both bear a fixed rate of interest of 3.75% until October 12, 2017, and 5.0% per annum beginning October 13, 2017 and thereafter, followed by an amortization period of 36 months of equal monthly payments of principal plus interest, beginning on November 12, 2017. Tranche II and Tranche III loans fully mature and expire when the final payment is made on October 12, 2020. As of December 31, 2016 Tranche I, Tranche II, and Tranche III have outstanding balances of $2,974,240, $2,974,240, and $0, respectively. As of December 31, 2017 Tranche I, Tranche II, and Tranche III have outstanding balances of $2,488,572, $2,820,382, and $3,760,509, respectively.

In early 2017, the Company breached a covenant in the LSA with Pacific Western Bank by failing to set mutually agreeable financial or milestone covenants on or before January 30, 2017. On March 30, 2017, pursuant to a Fourth Amendment to the LSA entered into between the Company and Pacific Western, Pacific Western waived the breach of this covenant and the covenant remains in effect.

In October 2017, the Company breached a covenant in its LSA with Pacific Western by failing to maintain minimum levels of cash. On November 30, 2017, pursuant to the Eighth Amendment to the Loan and Security Agreement, Pacific Western waived the breach of this covenant and amended the LSA to require the Company to maintain a cash balance of at least $2,500,000, monitored daily, from November 30, 2017 until the Company receives at least $12,000,000 from the issuance of equity instruments by December 31, 2017. The Company was in breach of this covenant as of December 31, 2017. In February 2018, Pacific Western waived the breach of this covenant as a result of the Company receiving equity financing in excess of the requirement.

Convertible Notes

In January and February 2017, the Company issued an aggregate of $11.8 million in principal of convertible promissory notes. The January and February Notes are accompanied by warrants to purchase of up to 25% of the aggregate principal amounts of the notes, equal to 3,698,128 shares of Series C-1. The January and February Notes mature on December 31, 2018, as amended, and bear interest at eight percent

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

11. Long-Term Debt (Continued)

(8%) per annum. Interest is earned daily and computed on the actual number of days elapsed until all the amounts under the notes have been paid in full. All unpaid principal and all accrued, but unpaid interest of each investor's note is due and payable on demand at the request of the investor at any time after December 31, 2018. In addition, upon the consummation of an asset sale, acquisition, or IPO, as defined, the investors may elect to accelerate the repayment of the note or convert into Class A or Series C-1 based on the following scenarios:

Singapore IPO

Upon the consummation of an IPO of the Company's capital stock registered on the Singapore Exchange Securities Trading Limited (a "Singapore IPO") after August 1, 2017, the holders have the right to elect to (i) receive payment from the Company equal to the outstanding principal plus all accrued but unpaid interest or (ii) convert the outstanding principal and accrued but unpaid interest into such shares of the Company's capital stock at a price per share that is equal to 70% of the price per share paid by the purchasers of such shares in such IPO.

Domestic IPO

Upon the consummation of an IPO of the Company's Common Stock registered under the Securities Act of 1933, after which such Common Stock is listed for trading on a United States national securities exchange (a "Domestic IPO"), the holders have the right to elect to (i) receive payment from the Company equal to the outstanding principal plus accrued but unpaid interest or (ii) convert all outstanding principal and accrued but unpaid interest into shares of the Company's Common Stock at a price per share that is equal to 75% of the price per share paid by the purchasers of the shares in such IPO.

Automatic Conversion upon Qualified Financing

The principal and accrued but unpaid interest automatically convert into shares of Preferred Stock issued in a Qualified Financing, as defined. The number of shares of Preferred Stock issued will be equal to the quotient of (i) the principal amount plus accrued but unpaid interest and (ii) 75% of the lowest price per share paid by investors participating in the Qualified Financing. If a Qualified Financing had not occurred prior to December 31, 2017, the holders of the notes had the right to elect to convert the outstanding principal plus accrued but unpaid interest into shares of the Company's Series C-1 at $0.59808 per share. The holders did not exercise this right.

Conversion upon Non-Qualified Financing

The holders may to elect to convert the outstanding principal and accrued but unpaid interest on the notes into any shares of the Company's capital stock that are issued in any financing transaction other than a Qualified Financing, a Domestic IPO or a Singapore IPO (a "Non-Qualified Financing"). The number of shares issued will be equal to the quotient of (i) the sum of the principal amount plus accrued but unpaid interest and (ii) 75% of the lowest price per share paid by investors participating in the Non-Qualified Financing.

Strategic Transaction

Upon the consummation of an asset sale of all or substantially all of the Company's assets or an acquisition, merger or change in control (a "Strategic Transaction"), the holders of the notes have the right to elect to (i) receive a payment from the Company equal to the sum of (1) 200% of the then outstanding principal and (2) accrued but unpaid interest or (ii) convert the outstanding principal and accrued but unpaid interest into shares of the Company's Series C-1 at $0.59808 per share.

Additionally, upon the occurrence of certain Events of Default, as defined in the notes, each investor may elect to accelerate the repayment of all unpaid principal and accrued interest under each note and the

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

11. Long-Term Debt (Continued)

notes provide for automatic redemption upon the occurrence of certain bankruptcy related Events of Default, as defined in the notes.

In July 2017, the Company entered into a series of unsecured convertible note agreements of $10.4 million in the aggregate. The July Notes bear interest at a rate of 8% per annum with a maturity date of December 31, 2018. In conjunction with this financing, the Company also entered into a commitment with an advisor in the form of a convertible note amounting to $442,356 with terms similar to the related transaction. The July Notes were not accompanied by warrants. Principal plus accrued interest convert into either preferred or common stock at the time of a Qualified Financing at a discount to the share price, depending on the financing similar to the January and February Notes. Conversion discounts on these convertible notes were largely similar to the January and February Notes except that the discount for a Singapore and Domestic IPO were both 50%.

In November 2017, the Company issued a series of unsecured subordinated convertible notes with an aggregate principal amount of $5.2 million to new and existing investors. The November Notes bear interest at a rate of 8% per annum with a maturity date of December 31, 2018. Principal plus accrued interest convert into either preferred or common stock at the time of a qualified financing, as defined, at a discount to the share price, depending on the financing. In conjunction with this financing, the Company also incurred fees of $392,000. The November Notes were not accompanied by warrants. Conversion discounts on these convertible notes were largely similar to the July Notes except that there was no discount upon mandatory conversion into a private financing round. In addition, at maturity, the November Notes (principal plus accrued but unpaid interest) convert into shares of the Company's Series C-1 at $0.72877 per share.

Accounting for Convertible Notes

The Company accounts for debt as liabilities measured at amortized cost and amortizes the resulting debt discount from allocation of proceeds to interest expense using the straight-line method over the expected term of the notes pursuant to ASC 835, *Interest* (ASC 835).

In connection with the issuance of the convertible notes and warrants, the Company recorded discounts equal to the full amount of each series of notes based on an allocation of proceeds to the warrants, an allocation to bifurcated derivatives which consist of a contingent put option upon a change of control or acceleration upon event of default and a contingent call option upon a change of control included in the notes, and a beneficial conversion feature, before issuance costs, based on the difference between the fair value of the underlying common stock at the commitment date of each note transaction and the effective conversion price of the notes, as limited by the proceeds allocated to the notes. Since the initial carrying value of all three series of convertible notes was $0, the combined debt issuance costs of $1,397,628 were charged to Interest Expense in the accompanying Statements of Operations and Comprehensive Loss. See Note 2 for discussion of the Company's policies for accounting for convertible instruments with detachable liability-classified warrants.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

11. Long-Term Debt (Continued)

The following is a summary of the liability component of Convertible Notes as of December 31, 2017:

	January and February Notes	July Notes	November Notes	Total
Principal amount of Convertible Notes	$ 11,796,168	$ 10,442,356	$ 5,150,000	$ 27,388,524
Unamortized discount on the notes	(5,504,878)	(7,291,816)	(4,753,846)	(17,550,540)
	$ 6,291,290	$ 3,150,540	$ 396,154	$ 9,837,984

The debt discount is being amortized as interest expense through the date of maturity, December 31, 2018. As of December 31, 2017, stated coupon interest accrued for convertible notes was $1,323,958 and amortization of debt discount and debt issuance costs were $9,837,984 and both are included in interest expense in the Statements of Operations and Comprehensive Loss.

Accounting for the Warrant Liabilities

The Company's liability-classified warrants were recorded as liabilities at their estimated fair value at the date of issuance, with the subsequent changes in estimated fair value recorded in derivative and warrant fair value adjustments in the Company's Statements of Operations and Comprehensive Loss. The warrants, with a fair value of $4,474,122 at inception, were initially recorded as warrant liabilities on the Balance Sheets with a corresponding discount to the notes. The change in the estimated fair value of the warrant liabilities for the year ended December 31, 2017 resulted in a fair value adjustment of $2,011,263 and is included in derivative and warrant fair value adjustments in the Statements of Operations and Comprehensive Loss. Changes in the values of the warrant liabilities are summarized below:

	Warrant Liabilities
Fair value at issuance in February 2017	$ 4,474,122
Change in fair value	(2,011,263)
Fair value at December 31, 2017	$ 2,462,859

Assumptions Used in Determining Fair Value of Liability Classified Warrants

To estimate the fair value of the warrants, the Company used a combination of the Current Value Method, Option Pricing Method ("OPM"), and Black-Scholes Option Pricing Model, in a Probability-Weighted Expected Return Method ("PWERM") context, or the Hybrid Method ("Hybrid Method"). The Company estimated the fair value of Series C-1 and estimated the fair value of Class A in the Singapore IPO and Domestic IPO scenarios. The Company used a Black-Scholes option pricing model to estimate the fair value of the warrants using the life of the warrants, assuming a Strategic Transaction does not occur, and the fair value of underlying equity values from the first step. The Company probability-weighted each scenario to arrive at an estimated fair value of the warrants.

Depending upon the scenario, warrants could be exercised to purchase either Class A or Series C-1 stock. To value the warrants in each scenario, the Company used either an OPM or the Black-Scholes option

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

11. Long-Term Debt (Continued)

pricing model. The hybrid method is a useful alternative to explicitly modeling all PWERM scenarios in situations when the Company has transparency into one or more near-term exits but is unsure about what will occur if the current plans fall through.

Key assumptions in the hybrid method include:

- OPM-Stay Private, US IPO or Singapore IPO
- Probability
- Timing (Each IPO)
- Enterprise value
- Type of Security
- Estimated security value
- Methodology of valuing warrant OPM

Accounting for the Derivative Liabilities

Management determined that the various conversion features discussed above represent, in substance, a put option (redemption feature) designed to provide the investor with a fixed monetary amount, settled in shares. Management determined that this put option and the Contingent Interest should be separated from the notes and accounted for as a compound derivative liability primarily because the notes were issued at a substantial discount because the warrants, put option, and the Contingent Interest meet the net settlement criterion. The compound derivative liabilities were initially recorded as a derivative liabilities on the Balance Sheets and a corresponding discount to the notes. The change in the estimated fair value of the derivative liabilities for the year ended ended December 31, 2017 resulted in a fair value adjustment of $9,872,990 and is included in derivative and warrrant fair value adjustments in the Statements of Operations and Comprehensive Loss.

Changes in the values of the derivative liabilities are summarized below:

	Derivative Liabilities related to the			
	January and February Notes	July Notes	November Notes	Total
Fair value at issuance	$ 4,365,880	$ 5,507,110	$ —	$ 9,872,990
Change in fair value	(4,365,880)	(5,507,110)	—	(9,872,990)
Fair value at December 31, 2017	$ —	$ —	$ —	$ —

Assumptions Used in Determining Fair Value of Compound Bifurcated Derivative

The Company assessed the accounting for the Convertible Notes and determined that there were several embedded derivatives that required bifurcation from the host debt instrument at fair value in accordance with ASC 815, *Derivatives and Hedging.* These embedded derivatives are more like equity instruments, and thus not "clearly and closely related" to the economic characteristics of the Convertible Notes. Further, they were determined not to meet the definition of being indexed to the Company's own stock due to the variable number of shares to be converted under different scenarios. When a host instrument has multiple embedded derivative features that require bifurcation, ASC 815 requires that they be bundled as one and accounted for separately from the Convertible Notes at fair value.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

11. Long-Term Debt (Continued)

To determine the fair value of such derivatives, the Company compared i) the expected payout from the different conversion scenarios upon their expected date of occurrence, discounted to present value at a risk-free rate, to 2) the fair value of the Convertible Notes if it were paid in cash or converted into Series C-1 on December 31, 2017. The difference between these two results represents the fair value of the bundled derivative.

First, the Company estimated the expected payout under the Singapore IPO, Domestic IPO and Qualified Financing scenarios. The principal and accrued interest on the Convertible Notes were calculated through the expected payout date, and divided by the stated conversion price discount to determine the amount that would be paid upon occurrence of the event. The payoff from each scenario was then discounted to present value at the risk-free rate and the Company probability-weighted each scenario to arrive at the expected payout value for purposes of the valuation. Next, it was assumed that if conversion under the IPO or Financing scenarios did not occur by December 31, 2017, it would be most advantageous for the investors to convert the Convertible Notes into Series C-1 or request payment of principal and interest in cash. The value of the Convertible Note under these scenarios was modeled using the OPM. The difference between the payout value under the various conversion scenarios and the value of the Convertible Notes under the OPM, assuming the Convertible Notes are not converted or paid until December 31, 2017, results in the fair value of the bundled derivative.

Accounting for the Beneficial Conversion Feature

The Company did not separate from the notes the conversion feature in which the holders may convert the principal and interest on the notes into shares of the Company's Series C-1 Preferred Stock at $0.59808 per share if a Qualified Financing has not occurred prior to December 31, 2017. The Company concluded that this conversion feature is a beneficial conversion feature that should be recognized separately and measured initially at its intrinsic value. Since the intrinsic value of this beneficial conversion feature is greater than the proceeds allocated to the notes, the amount of the discount assigned to the beneficial conversion feature is limited to the amount of the proceeds allocated to the notes. The Company recorded the beneficial conversion feature of $2,956,166, $4,935,246, and $5,150,000 as additional paid-in capital and a corresponding discount to the notes on the Balance Sheets for the January and February Notes, July Notes and November Notes, respectively.

Scheduled maturities of long-term debt as of December 31, 2017 are as follows:

Year ending December 31:	
2018	$ 33,179,542
2019	3,533,333
2020	2,044,444
Total	38,757,319
Less: Unamortized discount	(17,550,541)
Less: Unamortized debt issuance costs	(41,647)
Less: Current portion of long-term debt	(15,608,349)
	$ 5,556,782

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

December 31, 2016 and 2017

12. Subsequent Events

Subsequent events have been evaluated for disclosure through March 14, 2018, the date the Company's financial statements were available to be issued.

In February 2018, the Company received proceeds of $25.6 million in exchange for the corresponding sale of Series D Preferred Stock at a price per share of $0.59808 and related rights offering. In addition, all outstanding convertible notes, plus accrued interest, totaling $28.9 million, were converted into Series D preferred stock at the same price per share (see Note 3).

As mentioned in Note 11, as of December 31, 2017, the Company was in breach of a certain covenants under its LSA with Pacific Western. In February 2018, Pacific Western waived the breach of this covenant as a result of the Company receiving equity financing in excess of the requirement (see Note 11).

On March 7, 2018, the Board approved the grants of 13,645,767 stock options with an exercise price of $0.55 per share and 2,146,767 restricted stock units.

In March 2018, the Company completed construction and placed in service of its new PRINT Particle Fabrication Line, which was being financed with Lessor. Upon completion, the lease commenced in the same month (see Note 7).

13. Subsequent Event (Unaudited)

Additional subsequent events have been evaluated for disclosure through April 9, 2018, the date the Company's financial statements were reissued.

On March 29, 2018, the Company and Pacific Western executed the Ninth Amendment to the LSA (the "Ninth Amendment"). With the Ninth Amendment, new covenants were enacted requiring the Company to (1) at all times maintain a balance of cash at Pacific Western of at least $8.0 million, an increase of $5.5 million from its prior cash balance covenant, and (2) not observe any materially adverse data from its LIQ861 Phase 3 study on or before December 31, 2018. Pursuant to this Ninth Amendment, the interest-only period for the Tranche I loan was amended to include the period from January 7, 2018 to July 6, 2018, and the interest-only period for the Tranche II and Tranche III loans was amended to include the period from January 13, 2018 to July 12, 2018. Prior to executing the amendment, the Company had made principal payments of $0.6 million inside of the defined interest-only period, which were subsequently refunded on the same day.

Liquidia Technologies, Inc.
Balance Sheets

	December 31, 2017	March 31, 2018 (unaudited)
Assets		
Current assets:		
Cash	$ 3,418,979	$ 17,593,796
Accounts receivable, less allowance of $48,108 and $0, respectively	1,622,179	617,400
Prepaid expenses and other current assets	443,460	329,064
Total current assets	5,484,618	18,540,260
Property, plant and equipment, net	8,243,012	8,414,509
Prepaid expenses and other assets	1,115,972	2,273,491
Total assets	$ 14,843,602	$ 29,228,260
Liabilities and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 4,424,948	$ 4,713,267
Accrued expenses	2,785,618	2,144,208
Accrued compensation	1,952,505	745,123
Accrued interest	1,408,869	110,162
Deferred rent	268,628	268,599
Current portion of capital lease obligations	469,798	447,013
Current portion of deferred revenue	3,605,199	431,374
Current portion of long-term debt	15,608,349	5,453,555
Total current liabilities	30,523,914	14,313,301
Long-term capital lease obligations	510,625	478,575
Long-term deferred rent	2,612,552	2,561,117
Long-term deferred revenue	5,527,296	8,980,330
Long-term debt	5,556,782	6,904,813
Deferred financing obligation	1,341,810	—
Warrant liabilities	2,462,859	3,216,746
Total liabilities	48,535,838	36,454,882
Commitments and contingencies (Note 9)		
Stockholders' deficit:		
Preferred stock — Series A, $0.001 par value, 1,974,430 shares authorized, issued and outstanding as of December 31, 2017 and March 31, 2018 (unaudited), liquidation preference of $2,625,992	1,974	1,974
Preferred stock — Series A-1, $0.001 par value, 1,834,862 shares authorized, issued and outstanding as of December 31, 2017 and March 31, 2018 (unaudited), liquidation preference of $6,000,000	1,835	1,835
Preferred stock — Series B, $0.001 par value, 4,620,123 shares authorized, 4,496,908 shares issued and outstanding as of December 31, 2017 and March 31, 2018 (unaudited), liquidation preference of $16,000,000	4,497	4,497
Preferred stock — Series C, $0.001 par value, 17,102,578 shares authorized, issued and outstanding as of December 31, 2017 and March 31, 2018 (unaudited), liquidation preference of $25,000,035	17,103	17,103
Preferred stock — Series C-1, $0.001 par value, 21,254,306 shares authorized as of December 31, 2017 and March 31, 2018 (unaudited), 17,556,178 shares issued and outstanding as of December 31, 2017 and March 31, 2018 (unaudited), liquidation preference of $14,000,000	17,556	17,556
Preferred stock — Series D, $0.001 par value, 0 shares authorized, issued and outstanding as of December 31, 2017, 137,423,317 shares authorized, 91,147,482 issued and outstanding as of March 31, 2018 (unaudited), liquidation preference of $54,513,495	—	91,147
Common stock — Class A (voting), $0.001 par value, 175,000,000 and 265,000,000 shares authorized as of December 31, 2017 and March 31, 2018 (unaudited), respectively, 9,254,228 and 10,122,219 issued and outstanding as of December 31, 2017 and March 31, 2018 (unaudted), respectively	9,254	10,122
Common stock — Class B (non-voting), $0.001 par value, 330,664 shares authorized, issued and outstanding as of December 31, 2017 and March 31, 2018 (unaudited)	331	331
Additional paid-in capital	79,668,525	134,055,036
Accumulated deficit	(113,413,311)	(141,426,223)
Total stockholders' deficit	(33,692,236)	(7,226,622)
Total liabilities and stockholders' deficit	$ 14,843,602	$ 29,228,260

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.

Statements of Operations and Comprehensive Loss

(unaudited)

	Three Months Ended March 31,	
	2017	2018
Revenues	$ 1,639,176	$ 925,970
Costs and expenses:		
Cost of sales	79,940	27,049
Research and development	6,175,557	7,626,701
General and administrative	2,151,078	2,149,725
Total costs and expenses	8,406,575	9,803,475
Loss from operations	(6,767,399)	(8,877,505)
Other income (expense):		
Interest income	151	—
Interest expense	(2,246,447)	(17,876,795)
Derivative and warrant fair value adjustments	(823,051)	(753,887)
Total other income (expense), net	(3,069,347)	(18,630,682)
Net loss	(9,836,746)	(27,508,187)
Other comprehensive loss	—	—
Comprehensive loss	$ (9,836,746)	$ (27,508,187)
Per share data:		
Basic and diluted net loss per share	$ (1.05)	$ (2.63)
Weighted average common shares outstanding, basic and diluted	9,329,157	10,441,880

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.

Statement of Stockholders' Deficit

(unaudited)

	Preferred Stock												Common Stock						
	Series A		Series A-1		Series B		Series C		Series C-1		Series D		Class A Voting		Class B Nonvoting		Additional Paid-In Capital	Accumulated Deficit	Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance as of December 31, 2017	1,974,430	$ 1,974	1,834,862	$ 1,835	4,496,908	$ 4,497	17,102,578	$ 17,103	17,556,178	$ 17,556	—	$ —	9,254,228	$ 9,254	330,664	$ 331	$ 79,668,525	$(113,413,311)	$ (33,692,236)
Cumulative adjustment — adoption of ASC 606	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(504,725)	(504,725)
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	867,991	868	—	—	149,821	—	150,689
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	341,314	—	341,314
Issuance of Series D preferred stock, net	—	—	—	—	—	—	—	—	—	—	91,147,482	91,147	—	—	—	—	53,895,376	—	53,986,523
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(27,508,187)	(27,508,187)
Balance as of March 31, 2018	1,974,430	$ 1,974	1,834,862	$ 1,835	4,496,908	$ 4,497	17,102,578	$ 17,103	17,556,178	$ 17,556	91,147,482	$ 91,147	10,122,219	$ 10,122	330,664	$ 331	$134,055,036	$(141,426,223)	$ (7,226,622)

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.

Statements of Cash Flows

(unaudited)

	Three Months Ended March 31,	
	2017	2018
Operating activities		
Net loss	$ (9,836,746)	$ (27,508,187)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	127,199	341,314
Depreciation	223,066	324,854
Amortization of discount on long-term debt	1,966,028	17,550,541
Non-cash interest expense	221,192	227,186
Derivative fair value adjustment	206,727	—
Warrant fair value adjustment	616,324	753,887
Non-cash rent (income) expense	98,129	(51,465)
Lease incentive	258,482	—
Changes in operating assets and liabilities:		
Accounts and related party receivables	(778,653)	1,004,778
Prepaid expenses and other current assets	(18,699)	(178,326)
Other non-current assets	(622,835)	(5,433)
Accounts payable	(313,785)	(566,020)
Accrued expenses	397,402	(404,408)
Accrued compensation	(835,100)	(1,207,382)
Deferred revenue	(750,804)	(281,600)
Net cash used in operating activities	(9,042,073)	(10,000,261)
Investing activities		
Purchases of property, plant and equipment	(50,841)	(257,067)
Net cash used in investing activities	(50,841)	(257,067)
Financing activities		
Principal payments on capital lease obligations	(86,802)	(151,430)
Proceeds from issuance of convertible notes	11,796,168	—
Proceeds from issuance of long-term debt	4,000,000	—
Refund of principal payments on long-term debt	—	588,889
Principal payments on long-term debt	—	(912,011)
Payments for debt issuance costs	(10,892)	(392,000)
Payments for deferred offering costs	—	(58,734)
Proceeds from issuance of Series D preferred stock, net of issuance costs	—	25,206,742
Proceeds from exercise of stock options and warrants	5,434	150,689
Net cash provided by financing activities	15,703,908	24,432,145
Net increase in cash	6,610,994	14,174,817
Cash, beginning of period	1,438,712	3,418,979
Cash, end of period	$ 8,049,706	$ 17,593,796
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 59,228	$ 99,069
Purchase of equipment with capital leases	$ 101,348	$ 96,595
Changes in purchases of equipment in accounts payable	$ 11,908	$ 147,042
Purchase of build-to-suit asset with deferred financing obligation	$ —	$ 272,656
Reclassification of deferred financing obligation to long-term debt	$ —	$ 1,614,466
Reclassification of financing costs on deferred financing obligation to discount on long-term debt	$ —	$ 277,009
Recording of warrant liabilities with corresponding discount on convertible notes	$ 4,474,122	$ —
Recording of derivative liabilities with corresponding discount on convertible notes	$ 4,365,880	$ —
Conversion of convertible notes and accrued interest into Series D preferred stock	$ —	$ 28,877,498
Recording of discount on convertible notes as paid-in capital for beneficial conversion feature	$ 2,956,166	$ —
Deferred offering costs incurred but not paid	$ —	$ 744,548
Preferred stock issuance costs in accounts payable	$ —	$ 97,717

The accompanying notes are an integral part of these financial statements.

Liquidia Technologies, Inc.

Notes to Financial Statements

(unaudited)

1. Organization and Description of the Business

Liquidia Technologies, Inc. ("Liquidia" or the "Company"), is a late-stage clinical biopharmaceutical company focused on the development and commercialization of human therapeutics using the Company's proprietary PRINT technology to transform the lives of patients. PRINT is a particle engineering platform that enables precise production of uniform drug particles designed to improve the safety, efficacy and performance of a wide range of therapies. The Company is currently focused on the development of two product candidates for which it holds worldwide commercial rights: LIQ861 for the treatment of pulmonary arterial hypertension and LIQ865 for the treatment of local post-operative pain.

The development and commercialization activities are conducted at the Company's headquarters located in Morrisville, North Carolina. The Company was incorporated under the laws of the state of Delaware in 2004.

2. Significant Accounting Policies

Basis of Presentation

The unaudited interim financial statements as of and for the three months ended March 31, 2017 and 2018, have been prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial reporting. These financial statements are unaudited and, in the opinion of management, include all adjustments (consisting of normal recurring adjustments and accruals) necessary for a fair statement of the balance sheets, operating results and cash flows for the periods presented in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Operating results for the three months ended March 31, 2018, are not necessarily indicative of the results that may be expected for the fiscal year ended December 31, 2018. Certain information and footnote disclosures normally included in the annual financial statements prepared in accordance with GAAP have been omitted in accordance with the SEC's rules and regulations for interim reporting. The Company's financial position, results of operations and cash flows and are presented in U.S. Dollars.

The accompanying unaudited financial statements and related notes should be read in conjunction with the Company's audited financial statements for the years ended December 31, 2016 and 2017.

The Company adopted the Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU 2014-09"), *Revenue from Contracts with Customers* ("Topic 606") on January 1, 2018. There have been no other material changes to the Company's significant accounting policies during the three months ended March 31, 2017 and 2018, as compared to the significant accounting policies disclosed in Note 2 of the financial statements for the years ended December 31, 2016 and 2017.

Variable Interest Entities

The Company identifies entities (i) that do not have sufficient equity investment at risk to permit the entity to finance its activities without additional subordinated financial support or (ii) in which the equity investors lack an essential characteristic of a controlling financial interest as variable interest entities ("VIE" or "VIEs"). The Company performs an initial and on-going evaluation of the entities with which the Company has variable interests to determine if any of these entities are VIEs. If an entity is identified as a VIE, the Company performs an assessment to determine whether the Company has both (i) the power to direct activities that most significantly impact the VIE's economic performance and (ii) the obligation to absorb losses from or the right to receive benefits of the VIE that could potentially be significant to the VIE. If both

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

of these criteria are satisfied, the Company is identified as the primary beneficiary of the VIE and the entity must be consolidated.

Envisia Therapeutics Inc.

As of December 31, 2017 and March 31, 2018, the Company determined that Envisia Therapeutics Inc. ("Envisia") was a variable interest entity ("VIE") as the Company is not the primary beneficiary for Envisia.

The Company accounts for this investment as an equity method investment. Envisia has operated at a net loss since the spin out date and therefore full impairment in the basis of the equity investment was recorded in 2013, the year of initial recognition of the investment. As such, the aggregate investment balance of this VIE as of December 31, 2017 and March 31, 2018, was $0. The initial investment amount recorded represents the Company's maximum risk of loss related to the identified VIE. As of December 31, 2017 and March 31, 2018, Liquidia's common equity ownership percentage in Envisia was approximately 75%, and its ownership percentage of voting shares was 4.4%.

Going Concern

The Company's financial statements have been prepared assuming the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business.

The Company's operations have consisted primarily of developing its technology, developing products, prosecuting its intellectual property and securing financing. The Company has incurred recurring losses and cash outflows from operations, has an accumulated deficit, and has debt maturing within twelve months. The Company expects to continue to incur losses in the foreseeable future and will require additional financial resources to continue to advance its products and intellectual property, in addition to repaying its maturing debt and other obligations.

These circumstances raise substantial doubt about the Company's ability to continue as a going concern. Management's plans with regard to this matter include attempts to obtain additional financing from its current investors and new investors to sustain its operations or to pursue other financing alternatives. However, there is no assurance that the Company will be successful in obtaining sufficient financing on terms acceptable to the Company, and the failure of the Company to obtain sufficient funds on acceptable terms, when needed, could have a material adverse effect on the Company's business, results of operations and financial condition. If sufficient financings are not obtained, this may necessitate other actions by the Company. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual amounts could differ from those estimates.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

Equity Method Investments

The Company holds investments in equity method investees. Investments in equity method investees are those for which the Company has the ability to exercise significant influence but does not control and is not the primary beneficiary. Significant influence typically exists if the Company has a 20% or more voting interest in the venture, unless predominant evidence to the contrary exists. Under this method of accounting, the Company records its proportionate share of the net earnings or losses of equity method investees and a corresponding increase or decrease to the investment balances. Cash payments to equity method investees such as additional investments, loans and advances, as well as payments from equity method investees such as dividends, distributions and repayments of loans and advances, are recorded as adjustments to investment balances. The Company evaluates its equity method investments for impairment whenever events or changes in circumstances indicate that the carrying amounts of such investments may not be recoverable.

Accounts Receivable

Accounts receivable are stated at historical cost less an allowance for doubtful accounts as of each Balance Sheet date. The Company does not accrue interest on trade receivables. On a periodic basis, the Company evaluates its accounts receivable and establishes an allowance based on its history of collections and write-offs and the current status of all receivables. The Company writes off customer receivables when it becomes apparent, based upon customer facts and circumstances, that such amounts will not be collected.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash and accounts receivable. The Company is exposed to credit risk, subject to federal deposit insurance, in the event of default by the financial institutions holding its cash to the extent of amounts recorded on the Balance Sheet. With regards to cash, 100% of the Company's cash is held on deposit with Pacific Western Bank. With regards to revenues and accounts receivable, GlaxoSmithKline ("GSK" and "GSK Inhaled") accounted for 92% and 47% of the Company's revenues for the three months ended March 31, 2017 and 2018, respectively, and $1.1 million or 69% and $0.2 million or 36% of the Company's accounts receivable as of December 31, 2017 and March 31, 2018, respectively.

Deferred Rent

Rent expense is recognized on a straight-line basis over the life of the lease. The difference between rent expense recognized and rental payments, as stipulated in the lease, is reflected as deferred rent in the accompanying Balance Sheets and amortized over the life of the lease. In addition, deferred rent also includes landlord incentives on a portion of the leasehold improvement cost, which is amortized over the life of the lease.

Revenue Recognition

In May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers* ("Topic 606"). The FASB issued Topic 606 to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP. The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

the most current revenue recognition guidance. Topic 606 also includes Subtopic 340-40, *Other Assets and Deferred Costs — Contracts with Customers*, which requires the deferral of incremental costs of obtaining a contract with a customer and certain contract fulfillment costs. The Company adopted this standard and all the related amendments ("new revenue standard") on January 1, 2018, applying the modified retrospective method. The modified retrospective transition method is applied on a prospective basis from the adoption date and does not recast historical financial statement periods. Any contracts with customers that were not complete as of the adoption date are reviewed and the Company recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of accumulated deficit as of January 1, 2018. Financial information in comparative periods have not been restated and continue to be reported under the accounting methods in effect for that period.

This adoption primarily affected the recognition of non-refundable up-front fees and milestone payments. The Company previously recognized non-refundable up-front fees as deferred revenue which was recognized into revenue on a straight-line basis over the estimated period of the Company's substantive performance obligations, as a component of a multiple element arrangement. Milestone payments were previously accounted for under Accounting Standards Codification ("ASC") 605-28-50-2(e), which had required recognition of a milestone payment when the applicable event was considered to be both substantive and achieved. The adoption of the new revenue standard generally requires licenses that are not considered distinct performance obligations from other goods or services within a contract to be bundled with those goods or services as a combined performance obligation. Revenue associated with the combined performance obligation is recognized over time as those goods or services are delivered.

The adoption of the new revenue standard also impacted the deferral of sublicense payments related to the milestone payments, which were previously expensed when the milestone payments were recognized, and the timing of recognition of deferred sublicense payments related to upfront license payments. Under the new revenue standard, the incremental sublicense payments related to milestone payments will be deferred as contract fulfillment costs and amortized over time, consistent with the method of recognition for the related revenues.

The cumulative effect of the changes made to the January 1, 2018 balance of accumulated deficit on the Balance Sheet for the adoption of Topic 606 was $0.5 million as follows:

Balance Sheet:	Balance at December 31, 2017	Adjustments Due to Topic 606	Balance at January 1, 2018
		(unaudited)	(unaudited)
Assets			
Prepaid expenses and other current assets	$ 443,460	$ 10,552	$ 454,012
Prepaid expenses and other assets	1,115,972	45,529	1,161,501
Liabilities			
Current portion of deferred revenue	3,605,199	105,511	3,710,710
Long-term deferred revenue	5,527,296	455,295	5,982,591
Stockholders' deficit			
Accumulated deficit	(113,413,311)	(504,725)	(113,918,036)

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

In accordance with the new revenue standard requirements, the impact of adoption on the Statement of Operations and Comprehensive Loss and Balance Sheet was as follows:

	For the Three Months Ended March 31, 2018		
Statement of Operations and Comprehensive Loss:	**As Reported (unaudited)**	**Balances Without Adoption of Topic 606 (unaudited)**	**Effect of Change Higher/(Lower) (unaudited)**
Revenues	$ 925,970	$ 1,121,648	$ (195,678)
Costs and expenses			
Cost of sales	27,049	46,617	(19,568)
Net loss	(27,508,187)	(27,332,077)	176,110

	March 31, 2018		
Balance Sheet:	**As Reported (unaudited)**	**Balances Without Adoption of Topic 606 (unaudited)**	**Effect of Change Higher/(Lower) (unaudited)**
Assets			
Prepaid expenses and other current assets	$ 329,064	$ 511,975	$ (182,911)
Prepaid expenses and other assets	2,273,491	2,037,444	236,047
Liabilities			
Current portion of deferred revenue	431,374	2,260,481	(1,829,107)
Long-term deferred revenue	8,980,330	6,619,860	2,360,470
Stockholders' deficit			
Accumulated deficit	(141,426,223)	(140,947,996)	478,227

Segment Data

The Company manages, reports and evaluates its business in the following two segments: Pharmaceutical Products (formerly named Specialty Pharmaceutical) and Partnering and Licensing. The Company's reportable operating segments have been determined in accordance with the Company's internal management structure, which is organized based on operating activities, the manner in which the Company organizes segments for making operating decisions and assessing performance and the availability of separate financial results. Unallocated operations and corporate expenses, such as depreciation, facilities costs, corporate management costs and interest expense, are represented within Corporate / Operations.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

Pharmaceutical Products — The Company utilizes its proprietary PRINT technology to develop novel drug products (such as LIQ861 and LIQ865) based on presently commercialized drug products. The Company has not commenced commercialization of its pharmaceutical drug products and has not recognized any revenues to date. The Company intends to commercialize LIQ861 independently in the United States and intends to evaluate its commercialization and development plans for LIQ865. Revenues from these licensing arrangements would be recognized in this segment. In addition, if LIQ861 or LIQ865 are approved for marketing, the Company expects to recognize any revenues from sales of that product in this segment.

Partnering and Licensing — The Company utilizes its proprietary PRINT technology to enable the development of drug products by other pharmaceutical companies. The Company assists these customers in the development of their drug products through research and development services like particle formulation and manufacturing at market billing rates. The Company also typically receives up-front fees or technology access payments and milestone payments for each phase of clinical achievement. If these drug products achieve commercialization, the Company also expects to be eligible to receive royalties from the sale of their drug products.

For the three months ended March 31, 2017 and 2018, the majority of the Company's revenue from collaborating and licensing was derived from one agreement with GSK, namely the GSK Inhaled Collaboration and Option Agreement. The arrangements with GSK accounted for $1,504,084 and $438,351, representing 92% and 47% of total revenue for the three months ended March 31, 2017 and 2018, respectively. This revenue was comprised of billings for research and development services and amortization of deferred revenue from milestone payments and up-front payments.

The segment data is reflected below for the three months ended March 31, 2017 and 2018, as follows:

	2017 (unaudited)	2018 (unaudited)
Revenues:		
Pharmaceutical Products	$ —	$ —
Partnering and Licensing	1,639,175	925,970
Total	1,639,175	925,970
Operating (loss) income:		
Pharmaceutical Products	(3,684,887)	(4,984,525)
Partnering and Licensing	406,479	532,784
Corporate / Operations	(3,488,991)	(4,425,764)
Total	(6,767,399)	(8,877,505)
Interest income	151	—
Interest expense	(2,246,447)	(17,876,795)
Derivative and warrant fair value adjustments	(823,051)	(753,887)
Net loss	$ (9,836,746)	$ (27,508,187)

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

Segment information by asset is not disclosed as it is not reviewed by the Chief Operating Decision Maker or used to allocate resources or to assess the Company's operating results and financial performance. All long-lived assets are domiciled within the United States and all revenues were earned within the United States.

Research and Development Expense

Research and development costs are expensed as incurred and include direct costs incurred to third parties related to the salaries of, and stock-based compensation for, personnel involved in research and development activities, contractor fees, grant expenses, administrative expenses and allocations of research-related overhead costs. Administrative expenses and research-related overhead costs included in research and development expense consist of allocations of facility and equipment lease charges, depreciation and amortization of assets and insurance directly related to research and development activities.

Stock-Based Compensation

The Company accounts for stock-based compensation under the provisions of ASC 718, *Compensation — Stock Compensation* ("ASC 718"), which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors, including employee stock options, based on estimated fair values. ASC 718 requires companies to estimate the fair value of share-based awards on the grant date using an option pricing model. The value of the portion of the award that is ultimately expected to vest is recorded as expense over the requisite service periods in the Company's Statements of Operations and Comprehensive Loss.

The Company accounts for equity instruments issued to nonemployees in accordance with the provisions of ASC 505-50, *Equity-Based Payments to Non-Employees*, under which the stock-based compensation expense is recognized in the financial statements based on their grant date fair values. The Company values equity instruments, stock options and warrants for common stock granted to lenders and consultants using the Black-Scholes option pricing model. The measurement of non-employee stock-based compensation is recognized as an expense over the term of the related financing or the period over which services are received.

Net Loss Per Share

Basic net loss per share is computed by dividing the net loss by the weighted average number of common shares outstanding during the period.

Diluted net loss per share is computed by dividing net loss by the weighted average number of common shares adjusted for the dilutive effect of common equivalent shares outstanding during the period. Common stock equivalents consist of preferred stock, stock options and stock warrants. Net loss per share attributable to common stockholders is calculated using the two-class method, which is an earnings allocation formula that determines net loss per share for the holders of the Company's common shares and participating securities. The Company's convertible preferred stock contains participating rights in any dividend paid by the Company and are deemed to be participating securities. Net loss attributable to common stockholders and participating preferred shares are allocated to each share on an as-converted basis as if all of the earnings for the period had been distributed. The participating securities do not include a contractual obligation to share in the losses of the Company and are not included in the calculation of net

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

loss per share in the periods that have a net loss. Common equivalent shares are excluded from the computation in periods in which they have an anti-dilutive effect on net loss per share.

Diluted net loss per share is computed using the more dilutive of (a) the two-class method or (b) the if-converted method. In periods in which the Company reports a net loss attributable to common stockholders, diluted net loss per share attributable to common stockholders is the same as basic net loss per share attributable to common stockholders since dilutive common shares are not assumed to have been issued if their effect is anti-dilutive. Diluted net loss per share is equivalent to basic net loss per share for all years presented herein because common stock equivalent shares from unexercised stock options, outstanding warrants, preferred stock and common shares expected to be issued under the Company's employee stock purchase plan were anti-dilutive. Due to their dilutive effect, the calculation of diluted net loss per share for the three months ended March 31, 2017 and 2018 does not include the following common stock equivalent shares:

	2017	2018
	(unaudited)	
Preferred Stock	64,165,282	167,402,423
Stock Options	12,455,051	23,783,999
Warrants	3,969,874	4,394,914
Total	80,590,207	195,581,336

For the three months ended March 31, 2017 and 2018, there were no reconciling items between Basic and Diluted loss per share.

Fair Value of Financial Instruments

The carrying values of cash, accounts receivable, and accounts payable at December 31, 2017 and March 31, 2018 approximated fair value due to the short maturity of these instruments.

The Company's valuation of financial instruments is based on a three-tiered approach, which requires that fair value measurements be classified and disclosed in one of three tiers. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

Level 1 — Quoted prices in active markets for identical assets or liabilities;

Level 2 — Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly; and

Level 3 — Unobservable inputs for the asset and liability used to measure fair value, to the extent that observable inputs are not available.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

The following tables present the placement in the fair value hierarchy of financial instruments measured at fair value as of December 31, 2017 and March 31, 2018:

December 31, 2017	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Carrying Value
Pacific Western Bank Tranche I note	$ —	$ 2,512,301	$ —	$ 2,488,572
Pacific Western Bank Tranche II note	—	2,845,194	—	2,820,382
Pacific Western Bank Tranche III note	—	3,793,644	—	3,760,509
UNC promissory note	—	2,257,684	—	2,257,684
Convertible notes	—	—	28,702,268	9,837,984
Warrant liabilities	—	—	2,462,859	2,462,859
Total	$ —	$ 11,408,823	$ 31,165,127	$ 23,627,990

March 31, 2018 (unaudited)	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Carrying Value
Pacific Western Bank Tranche I note	$ —	$ 2,393,025	$ —	$ 2,390,769
Pacific Western Bank Tranche II note	—	2,726,844	—	2,738,319
Pacific Western Bank Tranche III note	—	3,635,792	—	3,651,093
CSC build-to-suit equipment financing	—	1,614,466	—	1,320,504
UNC promissory note	—	2,257,684	—	2,257,683
Warrant liabilities	—	—	3,216,746	3,216,746
Total	$ —	$ 12,627,811	$ 3,216,746	$ 15,575,114

The fair value of debt was measured as the present value of the respective future cash outflows discounted at a current interest rate as of the year-end date, taking into account the remaining term of liabilities.

Convertible Instruments

The Company has utilized various types of financing to fund its business needs, including convertible debt and convertible preferred stock, in some cases with corresponding warrants. The Company considered guidance within FASB ASC 470-20, *Debt with Conversion and Other Options*, ("ASC 470-20"), ASC 480, *Distinguishing Liabilities from Equity* ("ASC 480") and ASC 815, *Derivatives and Hedging* ("ASC 815"), when accounting for the issuance of convertible securities. Additionally, the Company reviews the instruments to determine whether they are freestanding or contain an embedded derivative and, if so,

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

whether they should be classified in permanent equity, mezzanine equity or as a liability at each reporting period until the amount is settled and reclassified into equity.

When multiple instruments are issued in a single transaction, the Company allocates total proceeds from the transaction among the individual freestanding instruments identified. The allocation is made after identifying all the freestanding instruments and the subsequent measurement basis for those instruments. The subsequent measurement basis determines how the proceeds are allocated. Generally, proceeds are allocated based on one of the following methods:

- Fair value method — The instrument being analyzed is allocated a portion of the proceeds equal to its fair value, with the remaining proceeds allocated to the other instruments as appropriate.
- Relative fair value method — The instrument being analyzed is allocated a portion of the proceeds based on the proportion of its fair value to the sum of the fair values of all the instruments covered in the allocation.
- Residual value method — The instrument being analyzed is allocated the remaining proceeds after an allocation is made to all other instruments covered in the allocation.

Generally, when there are multiple instruments issued in a single transaction that have different subsequent measurement bases, the proceeds from the transaction are first allocated to the instrument that is subsequently measured at fair value (i.e., instruments accounted for as derivative liabilities) at its issuance date fair value, with the residual proceeds allocated to the instrument not subsequently measured at fair value. In the event both instruments in the transaction are not subsequently measured at fair value (i.e., equity-classified instruments), the proceeds from the transaction are allocated to the freestanding instruments based on their respective fair values, using the relative fair value method.

After the proceeds are allocated to the freestanding instruments, resulting in an initial discount on the host contract, those instruments are further evaluated for embedded features (i.e., conversion options) that require bifurcation and separate accounting as a derivative financial instrument pursuant to ASC 815. Embedded derivatives are initially and subsequently measured at fair value. Under ASC 815, a portion of the proceeds received upon the issuance of the hybrid contract is allocated to the fair value of the derivative.

The Company accounts for convertible instruments in which it is determined that the embedded conversion options should not be bifurcated from their host instruments in accordance with ASC 470-20. Under ASC 470-20, the Company records, when necessary, discounts to convertible notes or convertible preferred stock for the intrinsic value of conversion options embedded in the convertible instruments based upon the differences between the fair value of the underlying common stock at the commitment date of the transaction and the effective conversion price embedded in the convertible instrument, unless limited by the proceeds allocated to such instrument.

Warrant Liabilities

The Company has classified warrants to purchase shares of Series C-1 preferred stock as a liability on its Balance Sheets as these warrants were free-standing financial instruments that will require the Company to issue convertible securities upon exercise. The warrants were initially recorded at fair value on date of grant, and they will be subsequently remeasured to fair value at each reporting period. Changes in fair value of the

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

warrants are recognized as a component of other income (expense) in the Statements of Operations and Comprehensive Loss. The Company will continue to adjust the liabilities for changes in fair value at each reporting period until the warrant liabilities are settled. Following an Initial Public Offering ("IPO") and the conversion of preferred stock into common stock, the Company will no longer include the warrant liabilities on the Balance Sheet or recognize changes in their fair value on the Statements of Operations and Comprehensive Loss.

The Company used the Black-Scholes option pricing model, which incorporates assumptions and estimates, to value the preferred stock warrants. The Company assessed these assumptions and estimates on a quarterly basis as additional information impacting the assumptions was obtained. Estimates and assumptions impacting the fair value measurement included the fair value per share of the underlying Series C-1 preferred stock, the remaining contractual term of the warrant, the risk-free interest rate, the expected dividend yield and the expected volatility of the price of the underlying preferred stock. The Company determined the fair value per share of the underlying preferred stock by taking into consideration the most recent sales of its convertible preferred stock, results obtained from third-party valuations and additional factors that were deemed relevant. The Company estimated its expected stock volatility based on the historical volatility of publicly traded peer companies for a term equal to the remaining contractual term of the warrant. The risk-free interest rate was determined by reference to the U.S. Treasury yield curve for time periods approximately equal to the remaining contractual term of the warrant. Expected dividend yield was based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

Embedded Derivatives

Embedded derivatives that are required to be bifurcated from the underlying instrument are accounted for and valued as a separate financial instrument. In conjunction with the Company's Convertible Instruments, embedded derivatives exist associated with the future consummation of a qualified financing event, as defined, and a subsequent discounted conversion of the instrument to capital stock. The embedded derivatives are bifurcated and classified as derivative liabilities on the Balance Sheets and separately adjusted to their fair values at the end of each reporting period. Changes in fair values of the derivative liabilities are recognized as a component of other income (expense) in the Statements of Operations and Comprehensive Loss.

Issuance Costs Related to Equity and Debt

The Company allocates issuance costs between the individual freestanding instruments identified on the same basis as proceeds were allocated. Issuance costs associated with the issuance of stock or equity contracts (i.e., equity-classified warrants and convertible preferred stock) are recorded as a charge against the gross proceeds of the offering. Any issuance costs associated with the issuance of liability-classified warrants are expensed as incurred. Issuance costs associated with the issuance of debt (i.e., convertible debt) is recorded as a direct reduction of the carrying amount of the debt liability, but limited to the notional value of the debt. The Company accounts for debt as liabilities measured at amortized cost and amortizes the resulting debt discount to interest expense using the straight-line method over the expected term of the notes pursuant to ASC 835, *Interest* ("ASC 835"). To the extent that the reduction from issuance costs of the carrying amount of the debt liability would reduce the carrying amount below zero, such excess is recorded as interest expense.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

Deferred Offering Costs

The Company capitalizes certain legal, professional accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until such equity financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' deficit as a reduction of proceeds generated as a result of the offering. Should the planned equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the Statement of Operations and Comprehensive Loss. As of December 31, 2017 and March 31, 2018, the Company recorded deferred offering costs relating to its IPO of $125,000 and $928,282, respectively, and these amounts are included in Prepaid Expenses and Other Assets in the accompanying Balance Sheets.

Income Taxes

The Company did not record a federal or state income tax benefit for the three and three months ended March 31, 2017 and 2018 due to its conclusion that a full valuation allowance is required against the Company's net deferred tax assets.

The asset and liability method is used in the Company's accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. The Company records a valuation allowance against deferred tax assets when realization of the tax benefit is uncertain.

A valuation allowance is recorded, if necessary, to reduce net deferred taxes to their realizable values if management does not believe it is more likely than not that the net deferred tax assets will be realized.

The Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement.

On December 22, 2017, the Tax Cuts and Jobs Act (the "TCJA") was enacted into law. This new law includes significant changes to the U.S. corporate income tax system, including a permanent reduction in the corporate income tax rate from 35% to 21%, limitations on the deductibility of interest expense and executive compensation and the transition of U.S. international taxation from a worldwide tax system to a territorial tax system. The TCJA also limits interest expense deductions to 30% of taxable income before interest, depreciation and amortization from 2018 to 2021 and then taxable income before interest thereafter. The TCJA permits disallowed interest expense to be carried forward for five years. The Company has calculated its best estimate of the impact of the TCJA in its income tax provision in accordance with its understanding of the TCJA and guidance available. Using the guidance issued by the SEC staff in Staff Accounting Bulletin No. 118, the Company expects to complete the accounting for the TCJA when the 2017 U.S. federal income tax return is filed in 2018. The legislative changes effective for the tax year 2018 did not have a material impact on the Company's financial statements.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

Recent Accounting Pronouncements

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments — Overall (Subtopic 825-10) — Recognition and Measurement of Financial Assets and Financial Liabilities* ("ASU 2016-01"). The provisions of ASU 2016-01 make targeted improvements to enhance the reporting model for financial instruments to provide users of financial statements with more useful information, including certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The guidance is effective for public companies with annual periods and interim periods within those annual periods beginning after December 15, 2017, and is expected to be effective for the Company for the year ending December 31, 2018. The Company adopted this standard effective January 1, 2018 and the adoption of this standard did not have a material impact on the Company's financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* ("ASU 2016-02"). The provisions of ASU 2016-02 set out the principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for in a similar manner as under existing guidance for operating leases. ASU 2016-02 supersedes the previous lease standard, Topic 840, *Leases*. The guidance is effective for public companies with annual periods and interim periods within those annual periods beginning after December 15, 2018, and is expected to be effective for the Company for the year ending December 31, 2019. The Company is currently evaluating the impact that the implementation of this standard will have on the Company's financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230) — Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"). The provisions of ASU 2016-15 address eight specific cash flow issues and how those certain cash receipts and cash payments are presented and classified in the statement of cash flows under Topic 230, *Statement of Cash Flows*, and other Topics. The guidance is effective for public companies with annual periods and interim periods within those annual periods beginning after December 15, 2017, with early adoption permitted. The Company adopted this standard effective January 1, 2018 and the adoption of this standard did not have a material impact on the Company's financial statements.

In May 2017, the FASB issued ASU 2017-09, *Compensation-Stock Compensation* (Topic 718): Scope of Modification Accounting, which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under the new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. The standard is effective for interim and annual reporting periods beginning after December 15, 2017, with early adoption permitted. The Company adopted this standard effective January 1, 2018 and the adoption of this standard did not have a material impact on the Company's financial statements.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share* (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

2. Significant Accounting Policies (Continued)

Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception. Part I of this update addresses the complexity of accounting for certain financial instruments with "down round" features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, *Distinguishing Liabilities from Equity*, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable noncontrolling interests. The amendments in Part II of this update do not have an accounting effect. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. The Company is evaluating the effect that ASU 2017-11 will have on its financial statements and related disclosures.

3. Common and Preferred Stock

Authorized Capital

As of March 31, 2018, the authorized capital of the Company consisted of 449,540,280 shares of capital stock, $0.001 par value per share, of which 265,000,000 shares are designated as Class A voting common stock ("Class A"), 330,664 shares are designated as Class B nonvoting common stock ("Class B") and 184,209,616 are designated as preferred stock. Of the designated preferred stock, 1,974,430 shares are designated as Series A Preferred Stock ("Series A"), 1,834,862 shares are designated as Series A-1 Preferred Stock ("Series A-1"), 4,620,123 shares are designated as Series B Preferred Stock ("Series B"), 17,102,578 shares are designated as Series C Preferred Stock ("Series C"), 21,254,306 shares are designated as Series C-1 Preferred Stock ("Series C-1"), and 137,423,317 shares are designated as Series D Preferred Stock ("Series D").

In June 2015, the Board approved an extension of the term of the Liquidia Technologies, Inc. Stock Option Plan (the "2004 Plan") by two additional years and an expansion of the pool of available shares by 5,000,000 shares, of which 3,374,000 were approved for grant to existing management. The Company had reserved a total of 18,299,642 shares of Class A Voting common stock for issuance under the 2004 Plan.

In May 2016, the Board approved a new second stock option plan (the "2016 Plan"). The option pool of shares available to issue under the 2016 Plan was established as 1,400,000 shares.

During 2017, the Company issued an aggregate of $27.4 million in principal of convertible promissory notes (see Note 10). The convertible notes had an original maturity date of December 31, 2018, as amended, and bore interest at eight percent (8%) per annum. Interest was earned daily and computed on the actual number of days elapsed until all the amounts under the notes have been paid in full. The convertible notes carried multiple conversion scenarios into equity with various discounts.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

3. Common and Preferred Stock (Continued)

In February 2018, the Company received proceeds of $25.6 million in exchange for the corresponding sale of Series D and related rights offering to new and existing investors. The applicable issue price per share for the Series D preferred stock was $0.59808, subject to adjustment as provided in the certificate of incorporation. In addition, all outstanding convertible notes, plus accrued interest, totaling $28.9 million were converted into Series D preferred stock at the same price per share without a discount. In total, 91,147,482 shares of Series D preferred stock were issued. Each share of Series D preferred stock is voting and is convertible at any time into a share of Class A voting common stock with such conversion ratio subject to future adjustment. Conversion is automatic upon a qualified financing, as defined. Each series of preferred stock has anti-dilution protection in the event of a dilutive issuance, as defined in the certificate of incorporation. The Series D stock bears an 8% per annum noncumulative dividend ($0.0478 per Series D preferred share) when and if declared. The Series D has a liquidation preference equal to the aggregate of the proceeds and the note conversions, or $54.5 million plus accrued but unpaid dividends, after which holders of Series D participate with all other stockholders in the remainder of liquidation proceeds on an as converted basis. The Series D is senior to all other series of preferred stock.

In conjunction with the sale of Series D preferred stock, the Board approved an expansion of the pool under the 2016 Plan by an additional 21,198,804 shares. In March 2018, the Board approved the grants of 13,670,767 stock options with an exercise price of $0.55 per share and 2,146,767 restricted stock units, leaving 5,915,157 shares available for future stock option grants as of March 31, 2018.

Common Stock

Upon any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company, the holders of the Class A voting common stock shall be entitled to receive that portion of the remaining funds to be distributed to the stockholders, subject to the liquidation preferences of the preferred stock, on a pro-rata basis with the holders of the Class B nonvoting common stock. Such funds shall be paid to the holders of the Class A voting common stock and Class B nonvoting common stock on the basis of the number of shares so held by each of them.

The Class B nonvoting common stock has mandatory conversion provisions (one-for-one) into Class A voting common stock, as declared by the Board of Directors and approved by the holders of a majority of the then issued and outstanding shares of Class A voting common stock, or immediately prior to an IPO.

Warrants

In connection with historical private placement offerings, the Company issued warrants to purchase its preferred stock with an exercise term of ten years from the date of issuance. Pursuant to the terms of the warrants, upon the conversion of the preferred stock underlying the warrant into common stock, the warrants automatically become exercisable for common stock based upon the conversion ratio of the underlying preferred stock.

At March 31, 2018, the Company had warrants outstanding to purchase 3,698,128 shares of the Company's Series C-1 Preferred stock with an exercise price of $.001 per share. As of March 31, 2018, the warrants for 3,698,128 shares of Series C-1 preferred stock convert into warrants for 4,394,914 shares of Class A common stock at the same time as all outstanding Series C-1 preferred shares have been converted to Class A common stock. The Series C-1 preferred stock will automatically convert into common stock

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

3. Common and Preferred Stock (Continued)

immediately prior to the closing of an IPO of the Company's stock, if such warrants have not previously expired.

As of December 31, 2017, there were outstanding warrants for 123,215 shares of Series B preferred stock that were convertible into warrants for 246,746 shares of Class A common stock at the same time as all outstanding Series B preferred shares have been converted to Class A common stock. These Series B warrants had an exercise price of $3.56 per share and expired on March 28, 2018.

4. Stock Options

In November 2004, the Board of Directors adopted, and the stockholders approved, the Plan to create an additional incentive for employees, directors, consultants and advisors. The Plan authorized the issuance of stock options to be granted as incentive stock options along with nonqualified stock options, restricted stock and other stock-based awards. The Board of Directors determines the exercise price of all options granted. The options vest based on terms provided for in the individual stock option agreements issued pursuant to the 2004 Plan. Options generally vest on a monthly basis over a period of up to 4 years and have a contractual life of ten years.

The 2016 Plan is the successor to the 2004 Plan. The terms of the 2016 Plan are similar to the 2004 Plan. The 2016 Plan provides for accelerated vesting under certain change of control transactions. Determining the appropriate fair value model and the related assumptions requires judgment. The fair value of each option grant is estimated using a Black-Scholes option pricing model. The following table summarizes the assumptions used for estimating the fair value of stock options granted during:

	Three Months Ended March 31,	
	2017	2018
	(unaudited)	(unaudited)
Expected dividend yield	—%	—%
Risk-free interest rate	1.34%	2.67% - 2.74%
Volatility	78%	78% - 79%
Expected life	6.25 years	6.25 years
Weighted-average fair value per share	$0.83	$0.44

The Company considers many factors when estimating expected forfeitures, including the employee or consultant class and historical experience. The Company does not maintain an internal market for its shares, and its shares are not traded privately or publicly. Therefore, the Company estimates volatility based upon the identification of similar public entities for which option price information is available to consider the historical, expected or implied volatility of those entities' share prices in estimating the Company's expected volatility. The expected term of options and warrants granted represents the period that options and warrants granted are expected to be outstanding. The risk-free interest rate for periods within the contractual life of the option and warrant is based on the yield of the U.S. Treasury securities at the time of

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

4. Stock Options (Continued)

grant. The Company amortizes the fair value, net of estimated forfeitures, over the remaining vesting term on a straight-line basis.

The following table summarizes stock option activity under the 2004 Plan and the 2016 Plan:

	Shares Available for Issuance (unaudited)	Options Outstanding (unaudited)	Weighted Average Exercise Price (unaudited)
Balance at December 31, 2017	524,887	11,245,985	$ 0.27
Shares reserved for future issuance	19,052,037	—	
Granted	(13,670,767)	13,670,767	$ 0.55
Exercised	—	(867,991)	$ 0.18
Cancelled/expired from 2004 Plan	—	(255,762)	$ 0.39
Cancelled/expired from 2016 Plan	9,000	(9,000)	$ 1.21
Balance at March 31, 2018	5,915,157	23,783,999	$ 0.45

The following summarizes certain information about stock options vested and expected to vest as of March 31, 2018:

	Number of Options (unaudited)	Weighted Average Remaining Contractual Life (In Years) (unaudited)	Weighted Average Exercise Price (unaudited)
Outstanding and expected to vest	21,849,927	8.68	$ 0.44
Vested and exercisable	7,981,145	5.23	$ 0.28

The weighted-average grant date price per share was $1.21 and $0.55 per share for the shares issued during the three months ended March 31, 2017 and 2018, respectively.

During the three months ended March 31, 2017, 20,037 stock options were exercised for the purchase of common stock for total proceeds of $5,434. The intrinsic value for the options exercised was $18,811. During the three months ended March 31, 2018, 867,991 stock options were exercised for the purchase of common stock for total proceeds of $150,689. The intrinsic value for the options exercised approximated $433,469.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

4. Stock Options (Continued)

At March 31, 2018, the intrinsic value of options outstanding and exercisable was $5,313,825. The weighted average remaining contractual term of options outstanding and exercisable is 8.68 years as of March 31, 2018.

During the three months ended March 31, 2017 and 2018, stock-based compensation expense for employee stock option awards totaled $127,199 and $341,314, respectively. As of March 31, 2018, there was $5,741,554 of total unrecognized compensation cost related to non-vested stock option grants, which is expected to be recognized over a weighted-average period of 2.3 years.

Stock Option Modifcation

During the three months ended March 31, 2018, certain stock options were modified pursuant to a separation agreement with one of the Company's former Senior Vice Presidents. A total of 343,000 options had their term extended to include the term of the post-separation consulting agreement of up to two months, resulting in additional stock option expense of $17,497 for the three months ended March 31, 2018.

5. License Agreements

Liquidia performs research under a license agreement with the UNC as amended to date, ("UNC Letter Agreement"). As part of the UNC Letter Agreement, Liquidia holds an exclusive license to certain research and development technologies and processes in various stages of patent pursuit, for use in its research and development and commercial activities, with a term until the expiration date of the last to expire patent subject to the UNC Letter Agreement, subject to industry standard diligence milestones. Under the UNC Letter Agreement, Liquidia is obligated to pay UNC royalties equal to a low single-digit percentage of all net sales of Liquidia drug products whose manufacture, use or sale includes any use of the technology or patent rights covered by the UNC Letter Agreement. Liquidia may grant sublicenses of UNC licensed intellectual property in return for specified payments based on a percentage of any fee, royalty or other consideration received.

In connection with the research, development and licensing agreements (see Note 6) entered into with GSK in June 2012, Liquidia paid sublicense fees to UNC and amortized each into research and development expense over the period of specific performance with GSK. Also, in connection with that sublicense fee, Liquidia agreed to issue $1.2 million of Series C-1 preferred shares to UNC under the same terms provided to other Series C-1 holders and an unsecured promissory note for $0.6 million. Refer to Note 10 for additional details on the unsecured promissory note.

In 2012 and 2015, GSK Vaccines and GSK Inhaled made up-front payments to the Company of $14.0 million and $20.0 million combined, respectively. On such payments, the Company incurred sublicense fees to UNC of $2.8 million and $2.5 million, respectively, which are being amortized into Cost of Sales in the accompanying Statements of Operations and Comprehensive Loss on a straight-line basis over the corresponding periods of revenue recognition of the related payments.

In June 2016, Liquidia entered into an amendment to the UNC Letter Agreement, whereby the date for completion of a milestone requiring launch of a commercial product was extended from January 1, 2018 to December 31, 2020. In addition, a 2016 letter agreement was accepted by UNC that detailed Liquidia's efforts in satisfying the obligations of two milestones related to developing and commercializing the licensed

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

5. License Agreements (Continued)

technology under the UNC Letter Agreement as of December 31, 2015, and accepted such efforts as satisfying the two milestones dated January 1, 2016. The 2016 letter agreement also included extending the maturity date of the promissory note (see Note 10) to December 31, 2017 and payment of an additional $1.5 million fee in exchange for modifying these progress milestones required under the UNC Letter Agreement. In December 2017, the Company executed an amendment to the UNC Letter Agreement that extends the maturity date of the promissory note from December 31, 2017 to June 30, 2018.

6. Revenue From Contracts With Customers

The Company derives revenues primarily from licensing its proprietary PRINT technology and from performing research and development services. Revenues are recognized as services are performed in an amount that reflects the consideration we expect to be entitled to in exchange for those services and technology.

In June 2012, the Company entered into a collaboration, as well as a license option and equity agreement, with GSK Inhaled, which is based in the United Kingdom. The agreements included up-front payments for option license rights to certain life science fields, research and development and manufacturing funding amounting to $14.0 million for up to three years, and key license terms, including extension and license fees, milestone payments and royalties on product sales. The Company recognized the non-refundable up-front fees into revenue over three years, in line with the term of the original agreement. In 2012, in connection with GSK's interest in the Company's technology, GSK invested $3.8 million in a Series C-1 preferred stock financing.

In September 2015, GSK Inhaled exercised the option to permanently license the technology for a non-refundable payment to the Company of $15.0 million. Pursuant to the license provisions of the collaboration agreement, GSK Inhaled is potentially required to pay Liquidia for certain milestones reached in the aggregate maximum amount of $158.0 million, and GSK Inhaled is required to pay Liquidia tiered royalties on the worldwide sales of the licensed products at percentages in the mid-single digits, based on net revenues from nonproprietary and proprietary products. Also during 2014 and 2015, the Company entered into other agreements under this collaboration, primarily for research services.

In June 2016, the Company entered into a development and license agreement with G&W Laboratories ("G&W") to develop multiple products for topical delivery in dermatology using the Company's PRINT technology (the "G&W Agreement"). The first non refundable up front fee of $1.0 million was received in June 2016. Research and development services commenced in July 2016 on the first program pursuant to this agreement.

The Company's research, development and licensing agreements provide for multiple promised goods and services to be satisfied by the Company and include a license to the Company's technology in a particular field of study, participation in collaboration committees, performance of certain research and development services and obligations for certain manufacturing services. The transaction price for these contracts includes non-refundable fees and fees for research and development services. Non-refundable up-front fees which may include, for example, an initial payment upon effectiveness of the contractual relationship or payment to secure a right for a future license, are recorded as deferred revenue and recognized into revenue over time as the Company provides the research services under the contract required to advanced the products to the point where the Company is able to transfer control of the licensed technology to the

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

6. Revenue From Contracts With Customers (Continued)

customer ("Technology Transfer"). The contract consideration may also include additional non-refundable payments due to the Company based on the achievement of research, development, regulatory or commercialization milestone events. In agreements involving multiple goods or services promised to be transferred to customers, the Company must assess, at the inception of the contract, whether each promise represents a separate performance obligation (i.e., is "distinct"), or whether such promises should be combined as a single performance obligation. As these goods and services are considered to be highly interrelated, they were considered to represent a single, combined performance obligation. The Company includes an estimate of the probable amount of milestone payments to which it will be entitled in the transaction price. The estimate requires evaluation of factors which are outside of the Company's control and significantly limit the Company's ability to achieve the remaining milestone payments. Therefore, the Company has not included any future milestone payments in the transaction price allocated to research, development and licensing agreements as of March 31, 2018. The Company revises the transaction price to include milestone payments once the specific milestone achievement is not considered to be subject to a significant reversal of revenue. At that time, the estimated transaction price is adjusted and a cumulative catch-up adjustment is recorded to adjust the amount of revenue to be recognized from the license inception to the date the milestone was deemed probable of achievement. The milestone is included with other non-refundable up-front fees and recognized into revenue over time as the Company continues to provide services under the contract prior to the Company's Technology Transfer. The amount of revenue recognized is based on the proportion of total research services performed to date to the expected services to be provided until the Technology Transfer is expected to occur.

The estimate of the research services to be provided prior to the Technology Transfer requires significant judgment to evaluate assumptions regarding the level of effort required for the Company to have performed sufficient obligations for the customer to be able to utilize the licensed technology without requiring further services from the Company. If the estimated level of effort changes, the remaining deferred revenue is recognized over the revised period in which the expected research services required to achieve Technology Transfer. Changes in estimates occur for a variety of reasons, including but not limited to (i) research and development acceleration or delays, (ii) customer prioritization of research projects, or (iii) results of research and development activities. The Company recognizes the consideration expected to be received for research and development services, which are primarily billed quarterly in arrears on a time and materials basis, as the services are performed and collection is reasonably assured.

Royalties related to product sales will be recognized as revenue when the sale occurs since payments relate directly to products that will have been fully developed and for which the Company will have satisfied all of its performance obligations.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

6. Revenue From Contracts With Customers (Continued)

The following tables represent a disaggregation of revenue by each significant research, development and licensing agreement and payment type for the three months ended March 31, 2017 and 2018:

	Revenue for the Three Months Ended March 31, 2017 From			
	Non-Refundable Payments			
Under Topic 605	Milestones (unaudited)	Up-front Payments (unaudited)	Research and Development Services (unaudited)	Total (unaudited)
GSK Inhaled	$ —	$ 750,000	$ 754,084	$ 1,504,084
Gates Foundation	—	36,408	—	36,408
Other	—	49,396	49,288	98,684
Total	$ —	$ 835,804	$ 803,372	$ 1,639,176

	Revenue for the Three Months Ended March 31, 2018 From			
	Non-Refundable Payments			
Under Topic 606	Milestones (unaudited)	Up-front Payments (unaudited)	Research and Development Services (unaudited)	Total (unaudited)
GSK Inhaled	$ 45,058	$ 225,293	$ 168,000	$ 438,351
Gates Foundation	—	—	—	—
Other	—	—	487,619	487,619
Total	$ 45,058	$ 225,293	$ 655,619	$ 925,970

Deferred Revenue

The Company recognized $835,804 of revenue from non-refundable payments under ASC 605 during the three months ended March 31, 2017, and $270,351 of revenue during the three months ended March 31, 2018 under Topic 606, which was included in deferred revenue balances at the beginning of these respective periods.

Transaction Price Allocated to the Remaining Performance Obligations

In the first quarter of 2018, the Company was made aware of delays and reduced requirements and budget for Liquidia support for its GSK and G&W Laboratories collaborators and revised its estimate of the remaining estimated period of the performance obligations. As a result, approximately $3 million of deferred

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

6. Revenue From Contracts With Customers (Continued)

revenue previously considered current was reclassified to long-term deferred revenue as it was not expected to be recognized within 12 months. As of March 31, 2018, approximately $9,015,338 of revenue is expected to be recognized from remaining performance obligations for non-refundable payments. The Company expects to recognize revenue on approximately 15%, 53% and 16% of these remaining performance obligations in 2019, 2020 and 2021 respectively, with the balance recognized thereafter. Revenue from remaining performance obligations for research and development services as of March 31, 2018 was not material.

Deferred Sublicense Payments

Sublicense payments to UNC are considered direct and incremental fulfillment costs of the Company's research, development and licensing agreements as the PRINT technology resources used by the Company are continually enhanced by UNC. These costs are deferred and then amortized over the same estimated period of benefit as the period of the underlying revenue recognition until Technology Transfer occurs. Amortization expense of $79,940 and $27,035 is included in Cost of Sales in the accompanying Statements of Operations and Comprehensive Loss for the three months ended March 31, 2017 and 2018, under ASC 605 and Topic 606, respectively. As of December 31, 2017, the balances of these unamortized payments under ASC 605 included in current and long-term prepaid expenses and other assets was $319,758 and $552,730, respectively. As of March 31, 2018, the balances of these unamortized payments included in current and long-term prepaid expenses and other assets was $3,501 and $898,033, respectively.

7. Property, Plant and Equipment

Property, plant and equipment consisted of the following:

	December 31, 2017	March 31, 2018 (unaudited)
Lab and build-to-suit equipment	$ 3,847,546	$ 5,571,149
Grant equipment	1,143,701	1,143,701
Office equipment	123,655	123,655
Furniture and fixtures	205,051	205,051
Computer equipment	677,569	693,193
Leasehold improvements	7,218,687	8,493,983
Construction-in-progress	2,830,407	312,235
Total property, plant and equipment	16,046,616	16,542,967
Accumulated depreciation	(7,803,604)	(8,128,458)
Property, plant and equipment, net	$ 8,243,012	$ 8,414,509

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

7. Property, Plant and Equipment (Continued)

The Company recorded depreciation expense of $223,066 and $324,854, respectively, for the three months ended March 31, 2017 and 2018. Maintenance and repairs are expensed as incurred and were $91,813 and $68,436, respectively, for the three months ended March 31, 2017 and 2018.

In December 2016, the Company executed an agreement with a commercial manufacturer to build a PRINT Particle Fabrication Line for the production of cGMP particles for Pharmaceutical Products. The ultimate cost was approximately $1.6 million. The Company financed this transaction with a 3rd party vendor, CSC Leasing Company ("CSC"). CSC made payments to the manufacturer per the payment schedule in the agreement as the asset was fabricated. CSC charged the Company a monthly lease rate on the scheduled payments made to the manufacturer as interim financing costs until the asset was completed and placed in service. Upon completion of fabrication, the lease commenced on March 1, 2018.

In accordance with ASC 840, *Leases*, for build-to-suit arrangements where the Company is involved in the fabrication of an asset prior to the commencement of the ultimate financing or takes some level of construction risk, the Company is considered the accounting owner of the assets during the fabrication period. Accordingly, during the fabrication phase, the Company recorded a Construction-in-progress asset within Property, plant and equipment and a corresponding deferred financing obligation liability for contributions by CSC toward fabrication. Upon completion of the fabrication in March 2018, since the Company maintained substantially all of the risk and rewards of ownership of the asset, the Company recorded the transaction as a financing, continuing to record the asset and reclassifying the deferred financing obligation to debt. As of December 31, 2017, $1,341,810 was recorded in construction-in-progress with an equal deferred financing obligation. As of March 31, 2018, $1,614,466 was recorded as a build-to-suit asset and $1,320,504 was recorded as long-term debt (see Note 10).

8. Related-Party Transactions

Envisia

For shared services provided by Liquidia to Envisia, Liquidia recorded $31,135 and $0, respectively, for sharing of patent costs as a reduction of Research and Development Expenses in the accompanying Statements of Operations and Comprehensive Loss for the three months ended March 31, 2017 and 2018.

9. Commitments and Contingencies

Operating Leases

The Company conducts its operations from leased facilities in Morrisville, North Carolina, the leases for which expire in 2022. The leases are for general office, laboratory, research and development and light manufacturing space. The lease agreements require the Company to pay property taxes, insurance, common area expenses and maintenance costs.

In November 2014 and November 2015, the Company executed the first and second extension period clauses, respectively, resulting in additional months to the lease for the related premises extending until October 2022. As part of these extensions, the Company received tenant allowances of $228,973 and $392,020, respectively, for expansion of laboratory and office space.

In January 2017, the Company signed a second extension to the lease of its primary building for an additional 48 months and expiring October 31, 2026. A tenant allowance of approximately $2,000,000

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

9. Commitments and Contingencies (Continued)

was also made available for use to help fund the expansion and build out of the primary building. This allowance was fully utilized as of March 31, 2018.

These allowance amounts were recorded as a long-term deferred rent liability and amortized as a reduction in rent expense over the remaining term of the lease. The balance of all unamortized deferred rent and allowances totaled $2,881,180 and $2,829,715 as of December 31, 2017 and March 31, 2018, respectively.

The Company also leases copier equipment under an operating lease, which expires in 2019.

Capital Leases

The Company leases specialized lab equipment under leases classified as capital leases. The related capitalized assets are amortized on a straight-line basis over the estimated useful life of the asset. The interest rates related to these lease obligations range from 0.2% to 12.2%.

Other

In March 2012, the Company entered into an agreement, as amended, with Chasm Technologies, Inc. for manufacturing consulting services related to the Company's manufacturing capabilities during the term of the agreement. As future contingent consideration under the agreement, the Company agreed to pay $400,000 related to the timing of the Company's first Phase 3 clinical trial which commenced in December 2017. The consideration of $400,000 is comprised of initial consideration of $20,000 paid in 2017, $80,000 to be paid upon first dosing of the first patient in the Phase 3 clinical trial, and $300,000 due no later than December 31, 2018. In addition, the Company also agreed to pay future contingent royalties on net sales totaling no more than $1,500,000. As of December 31, 2017 and March 31, 2018, $380,000 and $300,000, respectively, was accrued and is included in Accrued Expenses in the accompanying Balance Sheets.

In June 2017, the Company was served with a lawsuit filed by Allergan, Inc., in the United States District Court for the Central District of California, naming Liquidia and Envisia as defendants. The lawsuit alleged that Envisia's development efforts of one of its product candidates misused Allergan confidential information. The Company's involvement results from its possibly related activities that occurred prior to November 8, 2013, the date of formation of Envisia. In October 2017, the Company settled the litigation with Allergan, Inc., with no financial payments due from the Company or other consideration that materially affects the operation of the Company. There was no accrual for this in the Balance Sheets as of December 31, 2017 and March 31, 2018.

In December 2017, GSK Inhaled made the Company aware of its modified plans under the GSK Inhaled Collaboration and Option Agreement, and the reduced requirement and budget for Liquidia support, commensurate with its research and development plans related to PRINT effective March 31, 2018. As a result, in December 2017, the Company committed to a plan to reduce its workforce which was communicated to the workforce and completed the plan in January 2018. The total employee severance expense resulting from this plan is $404,407, which was expensed in Research and Development Expense in the accompanying Statements of Operations and Comprehensive Loss for the three months ended March 31, 2018. No further employee severance expense is planned related to this matter.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt

Long-term debt consisted of the following as of:

	Maturity Date	December 31, 2017	March 31, 2018 (unaudited)
Pacific Western Bank Tranche I note	December 8, 2019	$ 2,488,572	$ 2,390,769
Pacific Western Bank Tranche II note	October 10, 2020	2,820,382	2,738,319
Pacific Western Bank Tranche III note	October 10, 2020	3,760,509	3,651,093
UNC promissory note	June 30, 2018	2,257,684	2,257,683
Convertible notes, net of discounts	December 31, 2018	9,837,984	—
CSC build-to-suit equipment financing, net of discount	February 28, 2021	—	1,320,504
Less current portion		(15,608,349)	(5,453,555)
Long-term debt, less current portion		$ 5,556,782	$ 6,904,813

Pacific Western Bank

In January 2016, the Company entered into a Loan and Security Agreement ("LSA") with Pacific Western Bank ("Pacific Western"). The LSA provides that the Company may borrow up to $3.0 million in a term loan ("Term Loan") to supplement working capital and finance facility expansion and capital equipment purchases. The Term Loan is collateralized by a lien on all assets of the Company that are not otherwise encumbered, including a negative pledge on intellectual property prohibiting its sale without the bank's consent. The Company is also obligated to comply with various other customary covenants, including, among other things, restrictions on its ability to dispose of assets, replace or suffer the departure of the CEO or CFO without delivering 10 days' prior written notification to the bank, suffer a change on the Board of Directors which would result in the failure of at least one partner of either New Enterprise Associates or Canaan Partners or their respective affiliates to serve as a voting member, make acquisitions, be acquired, incur indebtedness, grant liens, make distributions to its stockholders, make investments, enter into certain transactions with affiliates or pay down subordinated debt, subject to specified exceptions. Amounts borrowed under the Term Loan may be repaid at any time without penalty or premium. The Term Loan was interest-only through July 6, 2017, followed by an amortization period of 30 months of equal monthly payments of principal plus interest, beginning on August 6, 2017 and continuing on the same day of each month thereafter until paid in full. Any amounts borrowed under the Term Loan bore interest at 3.75% during the initial 18-month interest-only period. Following the interest-only period, the interest rate increased to 5.00%, which is fixed for the duration of the loan. At closing, the Company was granted availability of the full $3.0 million, later designated as Tranche I of the Term Loan, with proceed disbursements in the minimum principal amount of $250,000 per draw. The Tranche I loan fully matures and expires when the final payment is made on January 6, 2020.

In October 2016, the Company amended the Term Loan ("Second Amendment") to (1) increase the initial loan amount to $10.0 million by providing a second Term Loan of $3.0 million ("Tranche II") and a third

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt (Continued)

Term Loan of $4.0 million ("Tranche III"); and (2) amend a section of the LSA regarding incurred indebtedness. The additional term loans are both subject to the same terms and conditions as the original Term Loan under the LSA. With the Second Amendment, new covenants were enacted requiring the Company to (1) receive proceeds from a sale or issuance of equity by December 31, 2016, which was achieved; (2) file a new clinical trial authorization by December 31, 2016, which was achieved; and (3) agree to set future covenants in future amendments after achievement of the aforementioned milestones. Pursuant to the Second Amendment, Tranche II and Tranche III both bear a fixed rate of interest of 3.75% until October 12, 2017, and 5.0% per annum beginning October 13, 2017 and thereafter, followed by an amortization period of 36 months of equal monthly payments of principal plus interest, beginning on November 12, 2017.

In early 2017, the Company breached a covenant in the LSA with Pacific Western Bank by failing to set mutually agreeable financial or milestone covenants on or before January 30, 2017. On March 30, 2017, pursuant to a Fourth Amendment to the LSA entered into between the Company and Pacific Western, Pacific Western waived the breach of this covenant and the covenant remains in effect.

In October 2017, the Company breached a covenant in its LSA with Pacific Western by failing to maintain minimum levels of cash. On November 30, 2017, pursuant to the Eighth Amendment to the Loan and Security Agreement, Pacific Western waived the breach of this covenant and amended the LSA to require the Company to maintain a cash balance of at least $2.5 million monitored daily, from November 30, 2017 until the Company receives at least $12.0 million from the issuance of equity instruments by December 31, 2017. The Company was in breach of this covenant as of December 31, 2017. In February 2018, Pacific Western waived the breach of this covenant as a result of the Company receiving equity financing in excess of the requirement.

On March 29, 2018, the Company and Pacific Western executed the Ninth Amendment to the LSA (the "Ninth Amendment"). With the Ninth Amendment, new covenants were enacted requiring the Company to (1) at all times maintain a balance of cash at Pacific Western of at least $8.0 million, an increase of $5.5 million from its prior cash balance covenant, and (2) not observe any materially adverse data from its LIQ861 Phase 3 study on or before December 31, 2018. Pursuant to this Ninth Amendment, the interest-only period for the Tranche I loan was amended to include the period from January 7, 2018 to July 6, 2018, and the interest-only period for the Tranche II and Tranche III loans was amended to include the period from January 13, 2018 to July 12, 2018. Prior to executing the amendment, the Company had made principal payments of $0.6 million inside of the defined interest-only period, which were subsequently refunded on the same day.

CSC Build-To-Suit Equipment Financing

See Note 7 for further discussion of the background of the equipment financing ("CSC Financing"). The CSC Financing has a term of three years with equal monthly payments that by themselves imply an interest rate equal to approximately 5.4% per annum. The effective interest rate is 14.9%. The CSC Financing is secured by a lien on the related Build-to-suit equipment and includes a option to purchase the build-to-suit equipment at maturity at an amount equal to the lesser of fair market value or 23% of the initial financed amount.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt (Continued)

UNC Promissory Note

In September 2012, the Company issued an unsecured promissory note with principal amount of $0.6 million as a sublicense fee to UNC, with principal and interest due in full on September 1, 2016, bearing an interest rate equal to the one-year LIBOR plus 2%, compounding annually. In June 2016, the Company (as licensee) negotiated modifications to its license agreement with UNC in exchange for an increase of $1.5 million to the note payable and extension of the maturity to December 31, 2017. As the Company had previously recorded a contingent liability of $1.5 million related to this license, the increase to the note payable was recorded as a reduction to the accrued expense balance at this time. In addition, the initial note of $0.6 million plus accrued interest were extended under the same terms. The combined note payable interest rate was increased by 1%. The balance of the promissory note at December 31, 2017 and March 31, 2018 was $2,257,683. In December 2017, the Company executed an amendment to the UNC Letter Agreement that extends the maturity date of the promissory note from December 31, 2017 to June 30, 2018. All other terms and conditions of the Letter Agreement continue in force through the new maturity date.

Convertible Notes

In January and February 2017, the Company issued an aggregate of $11.8 million in principal of convertible promissory notes (the "January and February Notes"). The January and February Notes are accompanied by warrants to purchase of up to 25% of the aggregate principal amounts of the notes, equal to 3,698,128 shares of Series C-1. The January and February Notes were scheduled to mature on December 31, 2018, as amended, and bore interest at eight percent (8%) per annum. Interest was earned daily and computed on the actual number of days elapsed until all the amounts under the notes had been paid in full. All unpaid principal and all accrued, but unpaid interest of each investor's note was due and payable on demand at the request of the investor at any time after December 31, 2018. In addition, upon the consummation of an asset sale, acquisition, or IPO, as defined, the investors may have elected to accelerate the repayment of the note or convert into Class A or Series C-1 based on the following scenarios:

Singapore IPO

Upon the consummation of an IPO of the Company's capital stock registered on the Singapore Exchange Securities Trading Limited (a "Singapore IPO") after August 1, 2017, the holders had the right to elect to (i) receive payment from the Company equal to the outstanding principal plus all accrued but unpaid interest or (ii) convert the outstanding principal and accrued but unpaid interest into such shares of the Company's capital stock at a price per share that was equal to 70% of the price per share paid by the purchasers of such shares in such IPO.

Domestic IPO

Upon the consummation of an IPO of the Company's Common Stock registered under the Securities Act of 1933, after which such Common Stock is listed for trading on a United States national securities exchange (a "Domestic IPO"), the holders had the right to elect to (i) receive payment from the Company equal to the outstanding principal plus accrued but unpaid interest or (ii) convert all outstanding principal and accrued but unpaid interest into shares of the Company's Common Stock at a price per share that was equal to 75% of the price per share paid by the purchasers of the shares in such IPO.

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt (Continued)

Automatic Conversion upon Qualified Financing

The principal and accrued but unpaid interest would have automatically converted into shares of Preferred Stock issued in a Qualified Financing, as defined. The number of shares of Preferred Stock issued would have been equal to the quotient of (i) the principal amount plus accrued but unpaid interest and (ii) 75% of the lowest price per share paid by investors participating in the Qualified Financing. If a Qualified Financing had not occurred prior to December 31, 2017, the holders of the notes had the right to elect to convert the outstanding principal plus accrued but unpaid interest into shares of the Company's Series C-1 at $0.59808 per share. The holders did not exercise this right.

Conversion upon Non-Qualified Financing

The holders may elect to convert the outstanding principal and accrued but unpaid interest on the notes into any shares of the Company's capital stock that are issued in any financing transaction other than a Qualified Financing, a Domestic IPO or a Singapore IPO (a "Non-Qualified Financing"). The number of shares issued would have been equal to the quotient of (i) the sum of the principal amount plus accrued but unpaid interest and (ii) 75% of the lowest price per share paid by investors participating in the Non-Qualified Financing.

Strategic Transaction

Upon the consummation of an asset sale of all or substantially all of the Company's assets or an acquisition, merger or change in control (a "Strategic Transaction"), the holders of the notes had the right to elect to (i) receive a payment from the Company equal to the sum of (1) 200% of the then outstanding principal and (2) accrued but unpaid interest or (ii) convert the outstanding principal and accrued but unpaid interest into shares of the Company's Series C-1 at $0.59808 per share.

Additionally, upon the occurrence of certain Events of Default, as defined in the notes, each investor may have elected to accelerate the repayment of all unpaid principal and accrued interest under each note and the notes provide for automatic redemption upon the occurrence of certain bankruptcy related Events of Default, as defined in the notes.

In July 2017, the Company entered into a series of unsecured convertible note agreements of $10.4 million in the aggregate (the "July Notes"). The July Notes bore interest at a rate of 8% per annum with a scheduled maturity date of December 31, 2018. In conjunction with this financing, the Company also entered into a commitment with an advisor in the form of a convertible note amounting to $0.4 million with terms similar to the related transaction. The July Notes were not accompanied by warrants. Principal plus accrued interest were convertible into either preferred or common stock at the time of a Qualified Financing at a discount to the share price, depending on the financing similar to the January and February Notes. Conversion discounts on these convertible notes were largely similar to the January and February Notes except that the discount for a Singapore and Domestic IPO were both 50%.

In November 2017, the Company issued a series of unsecured subordinated convertible notes with an aggregate principal amount of $5.2 million to new and existing investors (the "November Notes"). The November Notes bore interest at a rate of 8% per annum with a scheduled maturity date of December 31, 2018. Principal plus accrued interest were convertible into either preferred or common stock at the time of a qualified financing, as defined, at a discount to the share price, depending on the financing. In conjunction with this financing, the Company also incurred fees of $0.4 million. The November Notes were not accompanied by warrants. Conversion discounts on these convertible notes were largely similar to the

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Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt (Continued)

July Notes except that there was no discount upon mandatory conversion into a private financing round. In addition, at maturity, the November Notes (principal plus accrued but unpaid interest) would have converted into shares of the Company's Series C-1 at $0.72877 per share.

Accounting for Convertible Notes

The Company accounts for debt as liabilities measured at amortized cost and amortizes the resulting debt discount from allocation of proceeds to interest expense using the straight-line method over the expected term of the notes pursuant to ASC 835, *Interest* (ASC 835).

In connection with the issuance of the convertible notes and warrants, the Company recorded discounts equal to the full amount of each series of notes based on an allocation of proceeds to the warrants, an allocation to bifurcated derivatives which consist of a contingent put option upon a change of control or acceleration upon event of default and a contingent call option upon a change of control included in the notes, and a beneficial conversion feature, before issuance costs, based on the difference between the fair value of the underlying common stock at the commitment date of each note transaction and the effective conversion price of the notes, as limited by the proceeds allocated to the notes. Since the initial carrying value of all three series of convertible notes was $0, the combined debt issuance costs of $1,397,624 were charged to Interest Expense. See Note 2 for discussion of the Company's policies for accounting for convertible instruments with detachable liability-classified warrants.

In February 2018, the Company received proceeds of $25.6 million in exchange for the corresponding sale of Series D Preferred Stock at a price per share of $0.59808. In addition, all outstanding convertible notes, plus accrued interest, totaling $28.9 million, were converted into Series D preferred stock at the same price per share. The unamortized balances of the discounts on convertible notes of $17.6 million were then amortized to interest expense. Therefore, the balances of these notes at March 31, 2018 was $0. No gain or loss was recorded upon the conversion of the convertible notes.

Accounting for the Warrant Liabilities

The Company's liability-classified warrants were recorded as liabilities at their estimated fair value at the date of issuance, with the subsequent changes in estimated fair value recorded in derivative and warrant fair value adjustments in the Company's Statements of Operations and Comprehensive Loss. The warrants, with a fair value of $4,474,122 at inception, were initially recorded as warrant liabilities on the Balance Sheets with a corresponding discount to the notes. The change in the estimated fair value of the warrant liabilities resulted in a fair value adjustment and is included in derivative and warrant fair value

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt (Continued)

adjustments in the Statements of Operations and Comprehensive Loss. Changes in the values of the warrant liabilities for the three months ended March 31, 2017 and 2018 are summarized below:

	Three Months Ended March 31,	
	2017	2018
	(unaudited)	
Fair value, beginning of period	$ —	$ 2,462,859
Issuance of warrants	4,474,122	—
Change in fair value	616,324	753,887
Fair value, end of period	$ 5,090,446	$ 3,216,746

Assumptions Used in Determining Fair Value of Liability Classified Warrants

To estimate the fair value of the warrants, the Company used a combination of the Current Value Method, Option Pricing Method ("OPM"), and Black-Scholes Option Pricing Model, in a Probability-Weighted Expected Return Method ("PWERM") context, or the Hybrid Method ("Hybrid Method"). The Company estimated the fair value of Series C-1 and estimated the fair value of Class A in the Singapore IPO and Domestic IPO scenarios. The Company used a Black-Scholes option pricing model to estimate the fair value of the warrants using the life of the warrants, assuming a Strategic Transaction does not occur, and the fair value of underlying equity values from the first step. The Company probability-weighted each scenario to arrive at an estimated fair value of the warrants.

Depending upon the scenario, warrants could be exercised to purchase either Class A or Series C-1 stock. To value the warrants in each scenario, the Company used either an OPM or the Black-Scholes option pricing model. The hybrid method is a useful alternative to explicitly modeling all PWERM scenarios in situations when the Company has transparency into one or more near-term exits but is unsure about what will occur if the current plans fall through.

Key assumptions in the hybrid method include:

- § OPM-Stay Private, US IPO or Singapore IPO
- § Probability
- § Timing (Each IPO)
- § Enterprise value
- § Type of Security
- § Estimated security value
- § Methodology of valuing warrant OPM

Accounting for the Derivative Liabilities

Management determined that the various conversion features discussed above represent, in substance, a put option (redemption feature) designed to provide the investor with a fixed monetary amount, settled in shares. Management determined that this put option and the Contingent Interest should be separated from

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt (Continued)

the notes and accounted for as a compound derivative liability primarily because the notes were issued at a substantial discount because the warrants, put option, and the Contingent Interest meet the net settlement criterion. The compound derivative liabilities were initially recorded as derivative liabilities on the Balance Sheets and a corresponding discount to the notes. As the estimated fair value of the derivative liabilities was $0 at December 31, 2017 and did not change in value as of March 31, 2018, no fair value adjustment was recorded for the three months ended March 31, 2018. The change in the estimated fair value of the derivative liabilities for the three months ended March 31, 2017 resulted in a fair value adjustment and is included in derivative and warrant fair value adjustments in the Statements of Operations and Comprehensive Loss.

Changes in the values of the derivative liabilities for the three months ended March 31, 2017 and 2018 are summarized below:

	Three Months Ended March 31,	
	2017	2018
	(unaudited)	
Fair value, beginning of period	$ —	$ —
Issuance of derivatives	4,365,880	—
Change in fair value	206,727	—
Fair value, end of period	$ 4,572,607	$ —

Assumptions Used in Determining Fair Value of Compound Bifurcated Derivative

The Company assessed the accounting for the Convertible Notes and determined that there were several embedded derivatives that required bifurcation from the host debt instrument at fair value in accordance with ASC 815, *Derivatives and Hedging.* These embedded derivatives are more like equity instruments, and thus not "clearly and closely related" to the economic characteristics of the Convertible Notes. Further, they were determined not to meet the definition of being indexed to the Company's own stock due to the variable number of shares to be converted under different scenarios. When a host instrument has multiple embedded derivative features that require bifurcation, ASC 815 requires that they be bundled as one and accounted for separately from the Convertible Notes at fair value.

To determine the fair value of such derivatives, the Company compared i) the expected payout from the different conversion scenarios upon their expected date of occurrence, discounted to present value at a risk-free rate, to 2) the fair value of the Convertible Notes if it were paid in cash or converted into Series C-1 on December 31, 2017. The difference between these two results represents the fair value of the bundled derivative.

First, the Company estimated the expected payout under the Singapore IPO, Domestic IPO and Qualified Financing scenarios. The principal and accrued interest on the Convertible Notes were calculated through the expected payout date, and divided by the stated conversion price discount to determine the amount that

Liquidia Technologies, Inc.

Notes to Financial Statements (Continued)

(unaudited)

10. Long-Term Debt (Continued)

would be paid upon occurrence of the event. The payoff from each scenario was then discounted to present value at the risk-free rate and the Company probability-weighted each scenario to arrive at the expected payout value for purposes of the valuation. Next, it was assumed that if conversion under the IPO or Financing scenarios did not occur by December 31, 2017, it would be most advantageous for the investors to convert the Convertible Notes into Series C-1 or request payment of principal and interest in cash. The value of the Convertible Note under these scenarios was modeled using the OPM. The difference between the payout value under the various conversion scenarios and the value of the Convertible Notes under the OPM, assuming the Convertible Notes are not converted or paid until December 31, 2017, results in the fair value of the bundled derivative.

Accounting for the Beneficial Conversion Feature

The Company did not separate from the notes the conversion feature in which the holders may convert the principal and interest on the notes into shares of the Company's Series C-1 Preferred Stock at $0.59808 per share if a Qualified Financing had not occurred prior to December 31, 2017. The Company concluded that this conversion feature is a beneficial conversion feature that should be recognized separately and measured initially at its intrinsic value. Since the intrinsic value of this beneficial conversion feature is greater than the proceeds allocated to the notes, the amount of the discount assigned to the beneficial conversion feature is limited to the amount of the proceeds allocated to the notes. The Company recorded the beneficial conversion feature of $2,956,166, $4,935,246, and $5,150,000 as additional paid in capital and a corresponding discount to the notes on the Balance Sheet for the January and February Notes, July Notes and November Notes, respectively.

11. Subsequent Events

Subsequent events have been evaluated for disclosure through May 10, 2018, the date the Company's financial statements were available to be issued.

In April 2018, the Company and G&W mutually agreed to terminate the G&W Agreement.

For the reissuance of these financial statements, the Company has reviewed and evaluated subsequent events through June 28, 2018.

In June 2018, GSK notified the Company of its plans to review continuation of development of an inhaled antiviral for viral exacerbations in chronic obstructive pulmonary disease under the GSK Inhaled collaboration agreement after completion of its related Phase 1 clinical trial, with such continuation subject to GSK management approval. The Company believes that GSK will likely not continue further development of this program.

In June 2018, the Company executed an amendment to the UNC Letter Agreement that extends the maturity date of the promissory note from June 30, 2018 to December 31, 2018 with the potential for acceleration depending on the proceeds of the IPO. All other terms and conditions of the UNC Letter Agreement continue in full force and effect through the new maturity date.

Table of Contents

Shares

Liquidia Technologies, Inc.

Common Stock

PRELIMINARY PROSPECTUS

Joint Book-Running Managers

Jefferies
Cowen

Co-Managers

Needham & Company
Wedbush PacGrow

, 2018

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. ***Other Expenses of Issuance and Distribution***

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the U.S. Securities and Exchange Commission, or the SEC, registration fee, the FINRA filing fee and Nasdaq listing fee.

	Amount
SEC registration fee	$ 7,159
FINRA filing fee	9,125
Nasdaq listing fee	75,000
Accountants' fees and expenses	*
Legal fees and expenses	*
Blue Sky fees and expenses	*
Transfer agent's fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total expenses	$ *

* To be filed by amendment.

Item 14. ***Indemnification of Directors and Officers.***

Section 102 of the Delaware General Corporation Law, or the DGCL, permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our amended and restated certificate of incorporation will provide that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability

but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Upon completion of this offering, our amended and restated certificate of incorporation and amended and restated bylaws will provide indemnification for our directors and officers to the fullest extent permitted by the DGCL. We will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

Prior to the completion of this offering, we intend to enter into separate indemnification agreements with each of our directors and certain officers. Each indemnification agreement will provide, among other things, for indemnification to the fullest extent permitted by law and our amended and restated certificate of incorporation and amended and restated bylaws against any and all expenses, judgments, fines, penalties and amounts paid in settlement of any claim. The indemnification agreements will provide for the advancement or payment of all expenses to the indemnitee and for the reimbursement to us if it is found that such indemnitee is not entitled to such indemnification under applicable law and our amended and restated certificate of incorporation and amended and restated bylaws.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, or the Securities Act, against certain liabilities.

Item 15. ***Recent Sales of Unregistered Securities.***

The following sets forth information as to all securities we have sold since June 28, 2015, which were not registered under the Securities Act.

Series D Preferred Stock

On February 2, 2018, we issued and sold an aggregate of 82,560,006 shares of Series D preferred stock at a price per share equal to $0.59808. Of the 27 investors which participated in the initial closing of this offering, six investors purchased an aggregate of 34,276,349 shares of Series D preferred stock for an aggregate of $20.5 million and 26 holders of outstanding convertible notes in the aggregate amount of $28.9 million converted into an aggregate of 48,283,657 shares of Series D preferred stock.

Pursuant to the terms of the Series D Preferred Stock Purchase Agreement, on February 15, 2018 we sold 8,360,085 shares of Series D preferred stock to an accredited investor for a total purchase price of $5.0 million.

Additionally, pursuant to the terms of the Series D Preferred Stock Purchase Agreement, we offered our existing stockholders who are accredited investors the opportunity to purchase their pro rata portion of the Series D preferred stock in a rights offering. On February 28, 2018, we sold an aggregate of 227,391 shares of Series D preferred stock for an aggregate purchase price of $135,998.

We claimed an exemption from registration under the Securities Act for the issuance and sale of the Series D preferred stock under Section 4(a)(2) of the Securities Act in that such sales and issuances do not involve a public offering.

Unsecured Subordinated Convertible Promissory Notes

In a series of closings from January 9, 2017 to November 29, 2017, we issued and sold an aggregate of approximately $27.4 million underlying a total of 27 unsecured subordinated convertible promissory notes, each accruing simple interest at a rate of 8% per annum, or the Notes. See "Description of Capital Stock — Common Stock" for more information.

We claimed an exemption from registration under the Securities Act for the issuance and sale of the Notes under Section 4(a)(2) of the Securities Act in that such sales and issuances did not involve a public offering.

Warrants

In connection with the closings of the Notes from January 9, 2017 to February 17, 2017, we issued and sold 17 warrants to purchase an aggregate of 3,698,128 shares of our Series C-1 preferred stock at an exercise price of $0.001 per share which are convertible into an aggregate of 4,394,914 shares of common stock. See "Description of Capital Stock — Warrants" for more information.

On July 6, 2017, a warrant holder exercised a warrant to purchase shares of our common stock, issued on July 10, 2007, for 20,000 shares of our common stock.

We claimed an exemption from registration under the Securities Act for the issuance and sale of such warrants under Section 4(a)(2) of the Securities Act in that such sales and issuances did not involve a public offering.

Options

On August 27, 2015, we granted incentive stock options to eight employees and one director to purchase an aggregate of 960,362 shares of common stock under our 2004 Plan, with an exercise price equal to $0.28 per share. 239,766 of such option shares have subsequently been exercised for common stock.

On November 3, 2015, we granted incentive stock options to nine employees to purchase an aggregate of 713,161 shares of common stock under our 2004 Plan, with an exercise price equal to $0.28 per share. Options to purchase 30,000 shares have subsequently been exercised for common stock. Options to purchase 168,400 shares were terminated without being exercised.

On February 10, 2016, we granted incentive stock options to six employees to purchase an aggregate of 662,756 shares of common stock under our 2004 Plan, with an exercise price equal to $0.35 per share. Options to purchase 2,858 shares have subsequently been exercised for common stock. Options to purchase 37,137 shares were terminated without being exercised.

On August 10, 2016, we granted incentive stock options to eight employees to purchase an aggregate of 465,617 shares of common stock under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as amended, or the 2016 Plan, with an exercise price equal to $0.35 per share. Options to purchase 6,500 shares were terminated without being exercised.

On August 30, 2016, we granted incentive stock options to three employees to purchase an aggregate of 235,000 shares of common stock under the 2016 Plan, with an exercise price equal to $0.35 per share.

On December 7, 2016, we granted a non-statutory stock option to Arthur Kirsch, a director, to purchase 150,000 shares of common stock under the 2016 Plan, with an exercise price equal to $1.21 per share.

On March 15, 2017, we granted incentive stock options to seven employees to purchase an aggregate of 219,000 shares of common stock under the 2016 Plan, with an exercise price equal to $1.21 per share. Options to purchase 9,000 shares were terminated without being exercised.

On May 31, 2017, we granted an incentive stock option to an employee to purchase 18,000 shares of common stock under the 2016 Plan, with an exercise price equal to $1.21 per share.

On March 7, 2018, we granted incentive stock options to 64 employees to purchase an aggregate of 11,835,767 shares of common stock under the 2016 Plan, with an exercise price equal to $0.55 per share. Included in these 64 grants were grants to: (i) Neal Fowler, our Chief Executive Officer, for 3,900,000 shares; (ii) Kevin Gordon, our President and Chief Financial Officer, for 2,146,767 shares; (iii) Robert Lippe, our Chief Operations Officer, for 735,000 shares; (iv) Dr. Robert Roscigno, our Senior Vice President, Product Development, for 600,000 shares; (v) Dr. Benjamin Maynor, our Senior Vice President, Research and Development, for 700,000 shares; (vi) Jason Adair, our Vice President, Business Development and Strategy, for 350,000 shares; and (vii) Timothy Albury, our Senior Vice President, Chief Accounting Officer, for 514,000 shares.

On March 7, 2018, we also granted non-statutory stock options to four directors to purchase an aggregate of 1,810,000 shares of common stock under the 2016 Plan, with an exercise price equal to $0.55 per share. These four grants comprised grants to: (i) Arthur Kirsch, for 135,000 shares; (ii) Dr. Seth Rudnick, for 930,000 shares; (iii) Dr. Ralph Snyderman, for 460,000 shares; and (iv) Raman Singh, for 285,000 shares.

On March 7, 2018, in connection with his employment agreement, we granted Mr. Gordon 2,146,767 restricted stock units, equal to one percent of our issued and outstanding capital stock on a fully-diluted basis on the date of grant. Further, pursuant to his employment agreement, on the date of execution of the underwriting agreement Mr. Gordon is also entitled to (i) a stock option award under the Liquidia Technologies, Inc. 2018 Long-Term Incentive Plan, or the 2018 Plan, to purchase shares of our common stock equal to 1% of our capital stock on a fully-diluted basis on the date of grant (shares assuming we sell shares in this offering) with an exercise price per share equal to the initial public offering price, and (ii) a restricted stock unit award equal to 1% of our capital stock on a fully-diluted basis on the date of grant (shares assuming we sell shares in this offering).

We claimed exemption from registration under the Securities Act for the sales and issuances of securities in the transactions described above under Section 4(a)(2) of the Securities Act in that such sales and issuances did not involve a public offering or under Rule 701 promulgated under the Securities Act, or Rule 701, in that they were offered and sold either pursuant to written compensatory plans or pursuant to a written contract relating to compensation, as provided by Rule 701.

On the date of execution of the underwriting agreement, in addition to the option to be granted to Mr. Gordon upon the closing of this offering we expect to grant, under the 2018 Plan to certain of our officers and directors, an aggregate of shares of common stock issuable upon the exercise of stock options.

On March 27, 2018, we granted incentive stock options to two employees to purchase an aggregate of 25,000 shares of common stock under our 2016 Plan, with an exercise price equal to $0.55 per share.

On May 10, 2018, on a net basis, Mr. Fowler exercised an option granted on May 12, 2008 under the 2004 Plan, resulting in 257,057 shares of our common stock being issued to Mr. Fowler.

On June 19, 2018, we granted incentive stock options to four employees to purchase an aggregate of 1,189,000 shares of common stock under our 2016 Plan, with an exercise price equal to $0.67 per share.

Since June 28, 2015, 4,829,125 shares of common stock have been issued upon the exercise of stock options pursuant to the 2004 Plan.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued securities described in this Item 15 included appropriate legends setting forth that the securities had not been registered and the applicable restrictions on transfer.

Item 16. ***Exhibits and Financial Statement Schedules.***

(a) The following exhibits are filed as part of this Registration Statement:

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation currently in effect.
3.2	Certificate of Correction to the Amended and Restated Certificate of Incorporation currently in effect.
3.3*	Form of Amended and Restated Certificate of Incorporation, to be in effect after the consummation of this offering.
3.4	Bylaws, as amended, currently in effect.
3.5*	Form of Amended and Restated Bylaws, to be in effect after the consummation of this offering.
4.1	Form of Specimen Common Stock Certificate.
4.2	2016 Letter Agreement Promissory Note, issued by the Company to The University of North Carolina at Chapel Hill on June 10, 2016, as amended.
4.3	Form of Warrant to Purchase Shares of Series B Preferred Stock, issued by the Company on March 28, 2008.
4.4	Form of Warrant to Purchase Shares of Series C-1 Preferred Stock, issued by the Company in January 2017 and February 2017.
4.5	Seventh Amended and Restated Investors' Rights Agreement, dated as of February 2, 2018, by and among the Company, the Investors party thereto and the Common Holders party thereto.

Exhibit Number	Description
5.1*	Opinion of DLA Piper LLP (US).
10.1	Liquidia Technologies, Inc. Stock Option Plan (2004), as amended, and forms of award agreements thereunder.
10.2	Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as amended, and forms of award agreements thereunder.
10.3*	Liquidia Technologies, Inc. 2018 Long-Term Incentive Plan, and forms of award agreements thereunder.
10.4	Form of Indemnification Agreement with the Company's executive officers and directors.
10.5	Loan and Security Agreement, dated as of January 6, 2016, by and between the Company and Pacific Western Bank.
10.6	Second Amendment to Loan and Security Agreement, dated as of October 12, 2016, by and between the Company and Pacific Western Bank.
10.7	Third Amendment to Loan and Security Agreement, dated as of December 28, 2016, by and between the Company and Pacific Western Bank.
10.8	Fourth Amendment to Loan and Security Agreement, dated as of March 30, 2017, by and between the Company and Pacific Western Bank.
10.9	Fifth Amendment to Loan and Security Agreement, dated as of April 28, 2017, by and between the Company and Pacific Western Bank.
10.10	Sixth Amendment to Loan and Security Agreement, dated as of June 14, 2017, by and between the Company and Pacific Western Bank.
10.11	Seventh Amendment to Loan and Security Agreement, dated as of October 27, 2017, by and between the Company and Pacific Western Bank.
10.12	Eighth Amendment to Loan and Security Agreement, dated as of November 30, 2017, by and between the Company and Pacific Western Bank.
10.13	Ninth Amendment to Loan and Security Agreement, dated as of March 29, 2018 by and between the Company and Pacific Western Bank.
10.14+	Inhaled Collaboration and Option Agreement, dated as of June 15, 2012, by and between the Company and Glaxo Group Limited.
10.15+	Amendment No. 1 to the Inhaled Collaboration and Option Agreement, dated as of May 13, 2015, by and between the Company and Glaxo Group Limited.
10.16+	Second Amendment to the Inhaled Collaboration and Option Agreement, dated as of November 19, 2015, by and between the Company and Glaxo Group Limited.
10.17+	Amended and Restated License Agreement, dated as of December 15, 2008, by and between the Company and The University of North Carolina at Chapel Hill.
10.18+	First Amendment to Amended and Restated License Agreement, dated as of June 8, 2009, by and between the Company and The University of North Carolina at Chapel Hill.
10.19	Sixth Amendment to Amended and Restated License Agreement, dated as of June 10, 2016, by and between the Company and The University of North Carolina at Chapel Hill.
10.20+	Manufacturing Development and Scale-up Agreement, dated as of March 19, 2012, by and between the Company and Chasm Technologies, Inc.

Exhibit Number	Description
10.21+	1st Amendment to Manufacturing Development and Scale-up Agreement, dated as of May 25, 2017, by and between the Company and Chasm Technologies, Inc.
10.22#	Amended and Restated Executive Employment Agreement, dated as of January 31, 2018, by and between the Company and Neal Fowler.
10.23#	Executive Employment Agreement, dated as of January 22, 2018, by and between the Company and Kevin Gordon.
10.24#	Executive Employment Agreement, dated as of April 1, 2017, by and between the Company and Robert Lippe.
10.25#	Form of Amended and Restated Executive Employment Agreement to be entered into between the Company and Robert Lippe.
10.26#	Amended and Restated Executive Employment Agreement, effective January 22, 2018, by and between the Company and Timothy Albury.
10.27#	Form of Amended and Restated Executive Employment Agreement to be entered into between the Company and Timothy Albury.
10.28#	Liquidia Technologies, Inc. Annual Cash Bonus Plan.
10.29#	Executive Severance and Change in Control Plan.
10.30	Lease Agreement, dated as of April 14, 2005, by and between the Company and Technology VII-IX, LLC, as amended.
10.31	Lease Agreement, dated as of June 29, 2007, by and between the Company and GRE Keystone Technologies One LLC, as amended.
23.1	Consent of PricewaterhouseCoopers LLP, independent Registered Public Accounting Firm.
23.2*	Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
23.3	Consent of Decision Resources Group.
23.4	Consent of CapVal-American Business Appraisers, LLC.
24.1	Power of Attorney (included on signature page).

* To be filed by amendment.

\+ Application has been made to the Securities and Exchange Commission for confidential treatment of certain portions. Omitted material for which confidential treatment has been requested has been filed separately with the Securities and Exchange Commission.

\# Indicates management contract or compensatory plan.

Item 17. ***Undertakings.***

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act, may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful

defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, as amended, and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) The registrant will provide to the underwriter at the closing as specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

(2) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(3) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Morrisville, State of North Carolina, on this 28th day of June, 2018.

By: /s/ NEAL FOWLER

Name: Neal Fowler
Title: *Chief Executive Officer*

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of Neal Fowler and Kevin Gordon his true and lawful attorney-in-fact, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities to sign any and all amendments including post-effective amendments to this registration statement (including, without limitation, any additional registration statement filed pursuant to Rule 462 under the Securities Act of 1933), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact or his substitute, each acting alone, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Name	Position	Date
/s/ NEAL FOWLER Neal Fowler	Director and Chief Executive Officer (Principal Executive Officer)	June 28, 2018
/s/ KEVIN GORDON Kevin Gordon	President and Chief Financial Officer (Principal Financial Officer)	June 28, 2018
/s/ TIMOTHY ALBURY Timothy Albury	Senior Vice President, Chief Accounting Officer (Principal Accounting Officer)	June 28, 2018
/s/ SETH RUDNICK Seth Rudnick	Chairman of the Board of Directors	June 28, 2018
/s/ STEPHEN BLOCH Stephen Bloch	Director	June 28, 2018

Name	Position	Date
/s/ EDWARD MATHERS Edward Mathers	Director	June 28, 2018
/s/ ISAAC CHENG Isaac Cheng	Director	June 28, 2018
/s/ RALPH SNYDERMAN Ralph Snyderman	Director	June 28, 2018
/s/ ARTHUR KIRSCH Arthur Kirsch	Director	June 28, 2018
/s/ JASON RUSHTON Jason Rushton	Director	June 28, 2018
/s/ RAMAN SINGH Raman Singh	Director	June 28, 2018

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
LIQUIDIA TECHNOLOGIES, INC.

(Pursuant to Sections 228, 242 and 245 of the
General Corporation Law of the State of Delaware)

Liquidia Technologies, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"),

DOES HEREBY CERTIFY:

FIRST: That the name of this Corporation is Liquidia Technologies, Inc. (the "**Corporation**") and that this Corporation was originally incorporated pursuant to the General Corporation Law on June 8, 2004 under the name Liquidia Technologies, Inc.

SECOND: That the Board of Directors of this Corporation, by unanimous written consent effective as of January 31, 2018, duly adopted resolutions proposing to amend and restate the Amended and Restated Certificate of Incorporation, as amended (the "**Certificate of Incorporation**"), of this Corporation pursuant to Sections 242 and 245 of the General Corporation Law, declaring said amendment and restatement to be advisable and in the best interests of this Corporation and its stockholders, and authorizing the appropriate officers of this Corporation to solicit the consent of the stockholders therefor, which consent of the stockholders was obtained on January 31, 2018, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this Corporation be amended and restated in its entirety as follows:

ARTICLE I

The name of this Corporation is Liquidia Technologies, Inc.

ARTICLE II

The address of the registered office of this Corporation in the State of Delaware is 251 Little Falls Drive, Wilmington, New Castle County, Delaware 19808, and the name of the registered agent is Corporation Service Company.

ARTICLE III

The nature of the business or purposes to be conducted or promoted by this Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

ARTICLE IV

A. Authorization of Stock. This Corporation is authorized to issue 449,540,280 shares of capital stock, $0.001 par value per share, of which 265,000,000 shares shall be Class A Voting Common Stock, 330,664 shares shall be Class B Nonvoting Common Stock (the Class A Voting Common Stock and the Class B Nonvoting Common Stock are herein referred to collectively as the "**Common Stock**"), and 184,209,616 shares shall be Preferred Stock (the "**Preferred Stock**"), of which 1,974,430 shares shall be designated as Series A Preferred Stock (the "**Series A Stock**"), 1,834,862 shares shall be designated as Series A-l Preferred Stock (the "**Series A-l Stock**"), 4,620,123 shares shall be designated as Series B Preferred Stock (the "**Series B Stock**"), 17,102,578 shares shall be designated as Series C Preferred Stock (the "**Series C Stock**"), 21,254,306 shares shall be designated as Series C-1 Preferred Stock (the "**Series C-1 Stock**") and 137,423,317 shares shall be designated as Series D Preferred Stock (the "**Series D Stock**").

B. Rights, Preferences and Restrictions of the Preferred Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Preferred Stock are as set forth below in this Article IV(B).

1. Dividend Provisions.

(a) The holders of shares of Series D Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock of this Corporation or any subsidiary of this Corporation or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation or any subsidiary of this Corporation) on the Series C-1 Stock, Series C Stock, Series B Stock, Series A-l Stock, Series A Stock or the Common Stock of this Corporation, at the applicable Dividend Rate (as defined below), payable when, as and if declared by this Corporation's Board of Directors (the "**Board of Directors**"). Such dividends shall not be cumulative.

(b) After payment of the dividends set forth in Section 1(a) of this Article IV(B), the holders of shares of Series C-1 Stock and Series C Stock shall be entitled, on a pari passu basis, to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock of this Corporation or any subsidiary of this Corporation or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation or any subsidiary of this Corporation) on the Series B Stock, Series A-l Stock, Series A Stock or the Common Stock of this Corporation, at the applicable Dividend Rate, payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative.

(c) After payment of the dividends set forth in Section 1(a) and (b) of this Article IV(B), the holders of shares of Series B Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock of this Corporation or any subsidiary of

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this Corporation or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation or any subsidiary of this Corporation) on the Series A-l Stock, Series A Stock or the Common Stock of this Corporation, at the applicable Dividend Rate (as defined below), payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative.

(d) After payment of the dividends set forth in Sections 1(a), (b) and (c) of this Article IV(B), the holders of shares of Series A-l Stock shall be entitled to receive any additional dividends or distributions, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock of this Corporation or any subsidiary of this Corporation or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation or any subsidiary of this Corporation) on the Series A Stock or Common Stock of this Corporation, at the applicable Dividend Rate (as defined below), payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative

(e) After payment of the dividends set forth in Sections 1(a), (b), (c) and (d) of this Article IV(B), the holders of shares of Series A Stock shall be entitled to receive any additional dividends or distributions, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock of this Corporation or any subsidiary of this Corporation or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation or any subsidiary of this Corporation) on the Common Stock of this Corporation, at the applicable Dividend Rate (as defined below), payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative.

(f) For purposes of this Amended and Restated Certificate of Incorporation (this "**Restated Certificate of Incorporation**"), "**Dividend Rate**" shall mean (i) $0.0478 per annum for each share of Series D Stock, (ii) $0.0638 per annum for each share of Series C-1 Stock, (iii) $0.1169 per annum for each share of Series C Stock, (iv) $0.2847 per annum for each share of Series B Stock (v) $0.2616 per annum for each share of Series A-l Stock and (vi) $0.1064 per annum for each share of Series A Stock, (each as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like).

(g) After payment of such dividends set forth in Sections 1 (a), (b), (c), (d) and (e) of this Article IV(B), any additional dividends or distributions shall be distributed among all holders of Common Stock and Preferred Stock in proportion to the number of shares of Common Stock that would be held by each such holder if all shares of Preferred Stock were converted to Class A Voting Common Stock at the then-effective Conversion Rate.

2. Liquidation Preference.

(a) In the event of any Liquidation Event (as defined below), the holders of the Series D Stock shall be entitled to receive out of the proceeds of such Liquidation Event available for distribution to the stockholders of this Corporation (the "**Proceeds**"), an amount per share equal to the sum of the Original Issue Price (as defined in subsection 2(f) below) for the Series D Stock and all declared but unpaid dividends on such share, prior and in

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preference to any distribution to holders of Series C-1 Stock, Series C Stock, Series B Stock, Series A-1 Stock, Series A Stock or Common Stock by reason of their ownership of such stock. If, upon the occurrence of such Liquidation Event, the Proceeds to be distributed among the holders of the Series D Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire Proceeds legally available for distribution shall be distributed ratably among the holders of the Series D Stock in proportion to the full preferential amount that each such holder otherwise would be entitled to receive under this subsection 2(a).

(b) In the event of any Liquidation Event (as defined below), after, and only after, the full distribution required by subsection (a) of this Section 2 has been paid to all of the holders of Series D Stock, the holders of Series C-1 Stock and Series C Stock shall be entitled to receive, on a pari passu basis, out of the remaining Proceeds available for distribution to the stockholders of this Corporation, an amount per share equal to, with respect to holders of Series C-1 Stock, the sum of the Original Issue Price (as defined in subsection 2(f) below) for the Series C-1 Stock and all declared but unpaid dividends on such share, and with respect to holders of Series C Stock, the sum of the Original Issue Price (as defined in subsection 2(f) below) for the Series C Stock and all declared but unpaid dividends on such share, prior and in preference to any distribution to be made to holders of Series B Stock, Series A-l Stock, Series A Stock or Common Stock by reason of their ownership of such stock. If, upon the occurrence of such Liquidation Event, after, and only after, the full distribution required by subsection (a) of this Section 2 has been paid to all of the holders of Series D Stock, the Proceeds to be distributed among the holders of the Series C-1 Stock and Series C Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire Proceeds legally available for distribution in respect of the Series C-1 Stock and Series C Stock shall be distributed ratably among the holders of the Series C-1 Stock and Series C Stock in proportion to the full preferential amount that each such holder otherwise would be entitled to receive under this subsection 2(b).

(c) In the event of any Liquidation Event (as defined below), after, and only after, the full distribution required by subsections (a) and (b) of this Section 2 has been paid to all of the holders of Series D Stock, Series C-1 Stock and Series C Stock, the holders of the Series B Stock shall be entitled to receive, out of the remaining Proceeds available for distribution to the stockholders of this Corporation, an amount per share of Series B Stock equal to the sum of the Original Issue Price (as defined in subsection 2(f) below) for the Series B Stock and all declared but unpaid dividends on such share, prior and in preference to any distribution to be made to holders of Series A-l Stock, Series A Stock or Common Stock by reason of their ownership of such stock. If, upon the occurrence of such Liquidation Event, after, and only after, the full distribution required by subsections (a) and (b) of this Section 2 has been paid to all of the holders of Series D Stock, Series C-1 Stock and Series C Stock, the Proceeds to be distributed among the holders of the Series B Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire Proceeds legally available for distribution in respect of the Series B Stock shall be distributed ratably among the holders of the Series B Stock in proportion to the full preferential amount that each such holder otherwise would be entitled to receive under this subsection 2(c).

(d) In the event of any Liquidation Event (as defined below), after, and only after, the full distribution required by subsections (a), (b) and (c) of this Section 2 has been paid to all of the holders of Series D Stock, Series C-1 Stock, Series C Stock and Series B Stock, the holders of the Series A-l Stock shall be entitled to receive, out of the remaining Proceeds available for distribution to the stockholders of this Corporation, an amount per share of Series A-l Stock equal to the sum of the Original Issue Price (as defined in subsection 2(f) below) for the Series A-l Stock and all declared but unpaid dividends on such share, prior and in preference to any distribution to be made to holders of Series A Stock or Common Stock by reason of their ownership of such stock. If, upon the occurrence of such Liquidation Event, after, and only after, the full distribution required by subsections (a), (b) and (c) of this Section 2 has been paid to all of the holders of Series D Stock, Series C-1 Stock, Series C Stock and Series B Stock, the Proceeds to be distributed among the holders of the Series A-l Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire Proceeds legally available for distribution in respect of the Series A-l Stock shall be distributed ratably among the holders of the Series A-l Stock in proportion to the full preferential amount that each such holder otherwise would be entitled to receive under this subsection 2(d).

(e) In the event of any Liquidation Event (as defined below), after, and only after, the full distribution required by subsections (a), (b), (c) and (d) of this Section 2 has been paid to all of the holders of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock and Series A-l Stock, the holders of the Series A Stock shall be entitled to receive, out of the remaining Proceeds available for distribution to the stockholders of this Corporation, an amount per share of Series A Stock equal to the sum of the Original Issue Price (as defined in subsection 2(f) below) for the Series A Stock and all declared but unpaid dividends on such share, prior and in preference to any distribution to be made to holders of Common Stock by reason of their ownership of such stock. If, upon the occurrence of such Liquidation Event, after, and only after, the full distribution required by subsections (a), (b), (c) and (d) of this Section 2 has been paid to all of the holders of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock and Series A-l Stock, the Proceeds to be distributed among the holders of the Series A Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire Proceeds legally available for distribution in respect of the Series A Stock shall be distributed ratably among the holders of the Series A Stock in proportion to the full preferential amount that each such holder otherwise would be entitled to receive under this subsection 2(e).

(f) For purposes of this Restated Certificate of Incorporation, "**Original Issue Price**" shall mean (i) with respect to the Series D Stock, $0.59808 per share, (ii) with respect to the Series C-1 Stock, $0.79744 per share, (iii) with respect to the Series C Stock, $1.46177 per share, (iv) with respect to the Series B Stock, $3.558 per share, (v) with respect to the Series A-l Stock, $3.27 per share and (vi) with respect to the Series A Stock, $1.33 per share. In the event this Corporation shall (i) subdivide the outstanding shares of any series of Preferred Stock, (ii) combine or recombine the outstanding shares of any series of Preferred Stock into a smaller number of shares, or (iii) pay a dividend on any series of Preferred Stock payable in shares of such series of Preferred Stock, then the Original Issue Price of such series of Preferred Stock under this Restated Certificate of Incorporation shall be appropriately adjusted and each holder of Preferred Stock shall be entitled to receive from this Corporation, upon any Liquidation Event effective after the happening of any such subdivision, combination, or dividend, the same

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amount of cash as such holder would have been entitled to receive had the Liquidation Event been effective immediately prior to the happening of the subdivision, combination, or dividend. An adjustment made pursuant to this subsection 2(f) shall become effective (A) upon the effective date of the transaction, in the case of a subdivision or combination; or (B) upon the record date, in the case of a dividend of shares and any references to the Original Issue Price hereinafter any such adjustment shall refer to such price on an as adjusted basis.

(g) In the event of any Liquidation Event (as defined below), after, and only after, the full distribution required by subsections (a), (b), (c), (d) and (e) of this Section 2 has been paid to all of the holders of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock, Series A-l Stock and Series A Stock, the remaining Proceeds available for distribution to stockholders shall be distributed among the holders of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock, Series A-l Stock and Common Stock in proportion to the shares of Common Stock then held by such holders, with each share of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock and Series A-l Stock treated as the number of shares of Class A Voting Common Stock into which such share of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock, and Series A-1 Stock is then convertible; provided, however, that if, in connection with such Liquidation Event, the holders of shares of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock or Series A-l Stock receive 200% of the Original Issue Price plus any declared but unpaid dividends applicable to such series of Preferred Stock in respect of the liquidating distribution on each share of Series D Stock, Series C-1 Stock, Series C Stock, Series B Stock or Series A-l Stock pursuant to subsections (a), (b), (c), (d) and (g) of this Section 2, as the case may be, then the holders of such series of Preferred Stock shall not be entitled to receive any further participating distribution of this Corporation's assets under this subsection (g) of this Section 2.

(h) Notwithstanding the above, for purposes of determining the amount each holder of shares of Preferred Stock is entitled to receive with respect to a Liquidation Event, each such holder of shares of a series of Preferred Stock shall be deemed to have converted (regardless of whether such holder actually converted) such holder's shares of such series into shares of Class A Voting Common Stock at such time as such holder would receive, as a result of an actual conversion, in the aggregate, an amount greater than the amount that would be distributed to such holder if such holder did not convert such series of Preferred Stock into shares of Class A Voting Common Stock. If any such holder shall be deemed to have converted shares of Preferred Stock into Class A Voting Common Stock pursuant to this paragraph, then such holder shall not be entitled to receive any distribution that would otherwise be made to holders of Preferred Stock that have not converted (or have not been deemed to have converted) into shares of Class A Voting Common Stock.

(i) (i) For purposes of this Restated Certificate of Incorporation, a "**Liquidation Event**" shall include:

(A) the closing of the sale, transfer, exclusive license or other disposition of all or substantially all of this Corporation's assets (an "**Asset Sale**");

(B) the consummation of the merger or consolidation of this Corporation with or into another entity, except a merger or consolidation in which the

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holders of capital stock of this Corporation immediately prior to such merger or consolidation continue to hold at least 50% of the voting power of the capital stock of this Corporation or the surviving, resulting, or acquiring entity (a "**Merger**");

(C) the closing of the transfer (whether by merger, consolidation, share transfer or exchange or otherwise), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of this Corporation's securities), of this Corporation's outstanding securities if, after such closing, such person or group of affiliated persons would hold at least 50% of the then outstanding voting stock of this Corporation (or the surviving, resulting, or acquiring entity) (a "**Change of Control**" and together with a Merger, an "**Acquisition**"); or

(D) a voluntary or involuntary liquidation, dissolution or winding up of this Corporation.

The treatment of any particular transaction or series of related transactions as a Liquidation Event may be waived by the vote or written consent of the holders of a majority of the shares of Class A Voting Common Stock issuable upon conversion of the then outstanding shares of Series D Stock, Series C-1 Stock and Series C Stock (the "**Required Holders**"). Unless otherwise agreed upon by the Required Holders, no stockholder of this Corporation shall enter into any transaction or series of related transactions resulting in a Liquidation Event unless the terms of such transaction or transactions provide that the consideration to be paid to the stockholders of this Corporation is to be allocated in accordance with the preferences and priorities set forth in this Section 2.

(ii) In any Liquidation Event, subject in each case to Section 2(j), if Proceeds received by this Corporation or its stockholders are other than cash, its value will be deemed its fair market value as mutually determined by the Board of Directors and the Required Holders; provided that any securities shall be valued as follows:

(A) Securities not subject to investment letter or other similar restrictions on free marketability covered by subsection 2(i)(ii)(B) below:

(1) If traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the securities on such exchange or system over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Liquidation Event;

(2) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Liquidation Event; and

(3) If there is no active public market, the value shall be the fair market value thereof, as mutually determined by the Board of Directors and the Required Holders.

(B) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder's status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as above in subsections 2(i)(ii)(A)(1), (2) or (3) to reflect the approximate fair market value thereof, as mutually determined by the Board of Directors and the Required Holders.

(iii) In the event the requirements of this Section 2 are not complied with, this Corporation shall forthwith either:

(A) cause the closing of such Liquidation Event to be postponed until such time as the requirements of this Section 2 have been complied with; or

(B) cancel such Liquidation Event, in which event the rights, preferences and privileges of the holders of the Preferred Stock shall revert to and be the same as such rights, preferences and privileges existing immediately prior to the date of the first notice referred to in subsection 2(i)(iv) hereof.

(iv) This Corporation shall give each holder of record of Preferred Stock written notice of such impending Liquidation Event not later than twenty (20) days prior to the stockholders' meeting called to approve such transaction, or twenty (20) days prior to the closing of such transaction, whichever is earlier, and shall also notify such holders in writing of the final approval of such transaction. The first of such notices shall describe the material terms and conditions of the impending transaction and the provisions of this Section 2, and this Corporation shall thereafter give such holders prompt notice of any material changes. The transaction shall in no event take place sooner than twenty (20) days after this Corporation has given the first notice provided for herein or sooner than ten (10) days after this Corporation has given notice of any material changes provided for herein; provided, however, that subject to compliance with the General Corporation Law such periods may be shortened or waived upon the written consent of the Required Holders.

(j) Notwithstanding the above, for purposes of determining the amount each holder of shares of Preferred Stock is entitled to receive with respect to an Asset Sale or Acquisition, if any portion of the consideration payable to the stockholders of the Corporation is contingent upon the occurrence of any event or the passage of time (including, without limitation, any deferred purchase price payments, installment payments, payments made in respect of any promissory note issued in such transaction, payments from escrow, purchase price adjustment payments or payments in respect of "earnouts" or holdbacks), the merger agreement, sale agreement, or other agreement governing such Asset Sale or Acquisition shall provide that (i) the portion of such consideration that is not placed into escrow and not subject to any contingencies (the "**Initial Consideration**") shall be allocated among the holders of capital stock of this Corporation in accordance with Sections 2 (a), (b), (c), (d), (e) and (g) above as if the Initial Consideration were the only consideration payable in connection with such Asset Sale or Acquisition and (ii) any additional consideration which becomes payable to the stockholders of this Corporation upon release from escrow and/or satisfaction of contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2

(a), (b), (c), (d), (e) and (g) above after taking into account the previous payment of the Initial Consideration as part of the same transaction.

3. Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

(a) Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, at the office of this Corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Class A Voting Common Stock as is determined by dividing the Original Issue Price for such series of Preferred Stock (determined in accordance with subsection 2(f) above) by the applicable conversion price of such series of Preferred Stock (the "**Conversion Price**") (such quotient being referred to herein as the "**Conversion Rate**"), determined as hereafter provided, in effect on the date that such holder provides written notice to this Corporation that it has elected to convert such share. The current Conversion Price of the Series A Stock shall be $0.82460; the current Conversion Price of the Series A-l Stock shall be $1.4067; the current Conversion Price of the Series B Stock shall be $1.49140; the current Conversion Price of the Series C Stock shall be $0.66938; the current Conversion Price of the Series C-1 Stock shall be $0.66938, and the initial Conversion Price of the Series D Stock shall be $0.59808. The foregoing Conversion Price for each of the Series A Stock, Series A-1 Stock, Series B Stock, Series C Stock, Series C-1 Stock and Series D Stock reflects all deemed issuances of Additional Stock and reflects all prior Conversion Price adjustments and the assumed prospective issuance of $25,500,000 of shares of Series D Stock. The Conversion Price applicable to each series of Preferred Stock set forth above shall be subject to further adjustment as set forth in this Section 3.

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into shares of Class A Voting Common Stock at the Conversion Rate at the time in effect for such series of Preferred Stock immediately upon the earlier of (i) this Corporation's sale of its Class A Voting Common Stock in a firm commitment underwritten public offering pursuant to a registration statement on Form S-1 under the Securities Act of 1933, as amended, the public offering price of which (before deduction of underwriters commissions and expenses) was not less than $0.71767 per share (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like) and $35,000,000 in the aggregate and after which the Class A Voting Common Stock is listed on a United States national securities exchange or on the Singapore Exchange Securities Trading Limited, or such other national securities exchange as reasonably determined by the Board of Directors (a "**Qualified Public Offering**") or (ii) the date specified by written consent or agreement of the Required Holders. Such conversion shall be automatic, without need for any further action by the holders of shares of Preferred Stock and regardless of whether the certificates representing such shares are surrendered to this Corporation or its transfer agent; provided, however, that this Corporation shall not be obligated to issue certificates evidencing the shares of Class A Voting Common Stock issuable upon such conversion unless certificates evidencing such shares of Preferred Stock so converted are surrendered to this Corporation or the holder of record of such shares notifies this Corporation that such certificates have been lost, stolen or destroyed and such holder executes an agreement to indemnify this Corporation from any loss incurred by it in connection with such certificates, in each case in accordance with the procedures described in Section 3(c) below. Upon the conversion of Preferred Stock pursuant to this Section 3(b), this

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Corporation shall promptly send written notice thereof, by registered or certified mail, return receipt requested and postage prepaid, by hand delivery or by overnight delivery, to each holder of record of Preferred Stock at such holder's address then shown on the records of this Corporation, which notice shall state that certificates evidencing shares of Preferred Stock must be surrendered at the office of this Corporation (or of its transfer agent for the Class A Voting Common Stock, if applicable) in the manner described in Section 3(c) below; provided that, notwithstanding the foregoing, no notice may be effectively given by registered or certified mail to Morningside Venture Investments Limited ("**Morningside**").

(c) Mechanics of Conversion. Before any holder of Preferred Stock shall be entitled to voluntarily convert the same into shares of Class A Voting Common Stock, he or she shall surrender the certificate or certificates therefor, duly endorsed, at the office of this Corporation (or such holder notifies this Corporation that such certificates have been lost, stolen or destroyed and such holder executes an agreement to indemnify this Corporation from any loss incurred by it in connection with such certificates), accompanied by written notice to this Corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Class A Voting Common Stock are to be issued. This Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the

number of shares of Class A Voting Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date that such holder provides written notice to this Corporation that it has elected to convert such share, and the person or persons entitled to receive the shares of Class A Voting Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Class A Voting Common Stock as of such date. If the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act of 1933, as amended or a Liquidation Event, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering or the consummation of such Liquidation Event, in which event the persons entitled to receive the Class A Voting Common Stock upon conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities or the consummation of such Liquidation Event, as the case may be. If the conversion is in connection with Automatic Conversion provisions of subsection 3(b)(ii) above, such conversion shall be deemed to have been made on the conversion date described in the stockholder consent approving such conversion, and the persons entitled to receive shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holders of such shares of Common Stock as of such date.

(d) Conversion Price Adjustments of Preferred Stock for Certain Dilutive Issuances, Splits and Combinations. The Conversion Prices applicable to the separate series of the Preferred Stock shall be subject to adjustment from time to time as follows:

(i) (A) With respect to the Series A Stock, Series A-l Stock, the Series B Stock, the Series C-1 Stock and the Series C Stock, if this Corporation shall issue, on or after the date upon which this Restated Certificate of Incorporation is accepted for filing by the Secretary of State of the State of Delaware (the "**Filing Date**"), any Additional

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Stock (as defined below) without consideration or for a consideration per share less than the Conversion Price of the Series C-1 Stock in effect immediately prior to the issuance of such Additional Stock, the Conversion Price in effect for such series of Preferred Stock immediately prior to each such issuance shall forthwith (except as otherwise provided in this Section 3(d)(i)) be adjusted to a price determined by multiplying the Conversion Price of such series of Preferred Stock by a fraction, the numerator of which shall be the number of shares of Common Stock Outstanding (as defined below) immediately prior to such issuance plus the number of shares of Class A Voting Common Stock that the aggregate consideration received by this Corporation for such issuance would purchase at the Conversion Price of the Series C-1 Stock in effect immediately prior to the issuance of such Additional Stock; and the denominator of which shall be the number of shares of Common Stock Outstanding (as defined below) immediately prior to such issuance plus the number of shares of Additional Stock.

With respect to the Series D Stock, if this Corporation shall issue, on or after the Filing Date, any Additional Stock (as defined below) without consideration or for a consideration per share less than the Conversion Price of the Series D Stock in effect immediately prior to the issuance of such Additional Stock, the Conversion Price in effect for the Series D Stock immediately prior to each such issuance shall forthwith (except as otherwise provided in this Section 3(d)(i)) be adjusted to a price determined by multiplying the Conversion Price of the Series D Stock by a fraction, the numerator of which shall be the number of shares of Common Stock Outstanding (as defined below) immediately prior to such issuance plus the number of shares of Class A Voting Common Stock that the aggregate consideration received by this Corporation for such issuance would purchase at the Conversion Price of the Series D Stock in effect immediately prior to the issuance of such Additional Stock; and the denominator of which shall be the number of shares of Common Stock Outstanding (as defined below) immediately prior to such issuance plus the number of shares of Additional Stock.

For purposes of this Section 3(d)(i)(A), the term "**Common Stock Outstanding**" shall mean and include the following: (1) outstanding Common Stock, (2) Class A Voting Common Stock issuable upon conversion of outstanding Preferred Stock, (3) Common Stock issuable upon exercise of outstanding stock options and (4) Common Stock issuable upon exercise (and, in the case of warrants to purchase Preferred Stock, conversion) of outstanding warrants. Shares described in (1) through (4) above shall be included whether vested or unvested, whether contingent or non-contingent and whether exercisable or not yet exercisable.

(B) Except to the limited extent provided for in subsections (E)(3) and (E)(4), no adjustment of the Conversion Price of any series of Preferred Stock pursuant to this subsection 3(d)(i) shall have the effect of increasing such Conversion Price above the Conversion Price of such series of Preferred Stock in effect immediately prior to such adjustment.

(C) In the case of the issuance of Additional Stock for cash, the consideration shall be deemed to be the amount of cash paid therefor before deducting any reasonable discounts, commissions or other expenses allowed, paid or incurred by this Corporation for any underwriting or otherwise in connection with the issuance and sale thereof.

(D) In the case of the issuance of the Additional Stock for a consideration in whole or in part other than cash, the consideration other than cash shall be deemed to be the fair market value thereof as determined in good faith by the Board of Directors in its reasonable discretion irrespective of any accounting treatment.

(E) In the case of the issuance of options to purchase or rights to subscribe for Common Stock, securities by their terms convertible into or exchangeable for Common Stock or options to purchase or rights to subscribe for such convertible or exchangeable securities, the following provisions shall apply for purposes of determining the number of shares of Additional Stock issued and the consideration paid therefor:

(1) The aggregate maximum number of shares of Common Stock deliverable upon exercise (assuming the satisfaction of any conditions to exercisability, including without limitation, the passage of time, but without taking into account potential antidilution adjustments) of such options to purchase or rights to subscribe for Common Stock shall be deemed to have been issued at the time such options or rights were issued and for a consideration equal to the consideration (determined in the manner provided in subsections 3(d)(i)(C) and (d)(i)(D)), if any, received by this Corporation upon the issuance of such options or rights plus the minimum exercise price provided in such options or rights (without taking into account potential antidilution adjustments) for the Common Stock covered thereby.

(2) The aggregate maximum number of shares of Common Stock deliverable upon conversion of, or in exchange (assuming the satisfaction of any conditions to convertibility or exchangeability, including, without limitation, the passage of time, but without taking into account potential antidilution adjustments) for, any such convertible or exchangeable securities or upon the exercise of options to purchase or rights to subscribe for such convertible or exchangeable securities and subsequent conversion or exchange thereof shall be deemed to have been issued at the time such securities were issued or such options or rights were issued and for a consideration equal to the consideration, if any, received by this Corporation for any such securities and related options or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the minimum additional consideration, if any, to be received by this Corporation (without taking into account potential antidilution adjustments) upon the conversion or exchange of such securities or the exercise of any related options or rights (the consideration in each case to be determined in the manner provided in subsections 3(d)(i)(C) and (d)(i)(D)).

(3) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to this Corporation upon exercise of such options or rights or upon conversion of or in exchange for such convertible or exchangeable securities (including, without limitation, a change resulting from the antidilution provisions thereof), the Conversion Price of each series of the Preferred Stock, to the extent in any way affected by or computed using such options, rights or securities, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options or rights or the conversion or exchange of such securities.

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(4) Upon the expiration of any such options or rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, the Conversion Price of each series of the Preferred Stock, to the extent in any way affected by or computed using such options, rights or securities or options or rights related to such securities, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and convertible or exchangeable securities that remain in effect) actually issued upon the exercise of such options or rights, upon the conversion or exchange of such securities or upon the exercise of the options or rights related to such securities.

(5) The number of shares of Additional Stock deemed issued and the consideration deemed paid therefor pursuant to subsections 3(d)(i)(E)(1) and (2) shall be appropriately adjusted to reflect any change, termination or expiration of the type described in either subsection 3(d)(i)(E)(3) or (4). No readjustment or readjustments pursuant to either subsection 3(d)(i)(E)(3) or (4) shall have the effect of increasing the applicable Conversion Price of any series of Preferred Stock to an amount that exceeds the lower of (x) the Conversion Price of such series of Preferred Stock on the Filing Date or (y) the Conversion Price of such series of Preferred Stock that would have resulted from all issuances of Additional Stock between the Filing Date and such readjustment date. In the event of any adjustment to the Conversion Price of any series of Preferred Stock as a result of the issuance of options to purchase or rights to subscribe for Common Stock, securities by their terms convertible into or exchangeable for Common Stock or options to purchase or rights to subscribe for such convertible or exchangeable securities pursuant to this Section 3(d), no further adjustment to the Conversion Price of such series of Preferred Stock shall be made for the actual issuance of Common Stock upon the exercise of any such options or rights or the conversion or exchange of such securities.

(ii) "**Additional Stock**" shall mean all shares of Common Stock issued (or deemed to have been issued pursuant to subsection 3(d)(i)(E)) by this Corporation on or after the Filing Date other than:

(A) securities issued pursuant to a transaction described in subsection 3(d)(iii) hereof;

(B) shares of Common Stock (or options exercisable for shares of Common Stock) issued to employees, directors, consultants and other service providers for the primary purpose of soliciting or retaining their services pursuant to an equity incentive plan (the "**Option Plan**") approved by the Board of Directors;

(C) securities issued pursuant to a Qualified Public Offering;

(D) securities issued pursuant to the conversion or exercise of convertible or exercisable securities outstanding on the Filing Date;

(E) securities issued in connection with a bona fide business acquisition of another business by this Corporation other than for financing purposes,

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whether by merger, consolidation, sale of assets, sale or exchange of stock or otherwise; provided, that such acquisition is approved by the Board of Directors;

(F) Class A Voting Common Stock issued or deemed issued pursuant to subsection 3(d)(i)(E) as a result of a decrease in the Conversion Price of any series of Preferred Stock resulting from the operation of Section 3(d);

(G) securities issued or issuable pursuant to the exercise of warrants, options or other rights granted in connection with any loan arrangement, equipment lease, technology license, vendor or customer relationship or similar non-equity financing transaction approved by the Board of Directors; provided, that the aggregate number of shares of capital stock issued or issuable by the Corporation pursuant to this subsection 3(d)(ii)(G) may not exceed 400,000 shares of Common Stock (subject to appropriate adjustment for stock splits, stock dividends, combinations or the like) (on a Common Stock equivalent basis);

(H) shares of Class A Voting Common Stock issued upon conversion of the Preferred Stock; or

(I) up to 90,920,091 shares of Series D Stock issued pursuant to that certain Series D Preferred Stock Purchase Agreement, as amended from time to time in the manner set forth in such agreement (the "**Purchase Agreement**").

(iii) In the event this Corporation should at any time or from time to time after the Filing Date fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "**Common Stock Equivalents**") without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Conversion Price of each series of Preferred Stock shall be appropriately decreased so that the number of shares of Class A Voting Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase of the aggregate of shares of Common Stock outstanding and those issuable with respect to such Common Stock Equivalents with the number of shares issuable with respect to Common Stock Equivalents determined from time to time in the manner provided for deemed issuances in subsection 3(d)(i)(E).

(iv) If the number of shares of Common Stock outstanding at any time after the Filing Date is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Conversion Price of each series of Preferred Stock shall be appropriately increased so that the number of shares of Class A Voting Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in outstanding shares.

(e) Other Distributions. In the event this Corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this Corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in subsection 3(d)(iii) other than in connection with a Liquidation Event, then, in each such case for the purpose of this subsection 3(e), the holders of the Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Class A Voting Common Stock of this Corporation into which their shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Class A Voting Common Stock of this Corporation entitled to receive such distribution.

(f) Recapitalizations. If at any time or from time to time the Class A Voting Common Stock is converted into other securities or property, whether pursuant to a recapitalization, reorganization, merger, consolidation or otherwise (other than a subdivision or combination provided for elsewhere in this Section 3 or a Liquidation Event pursuant to Section 2) provision shall be made so that the holders of the Preferred Stock shall thereafter be entitled to receive upon conversion of the Preferred Stock the number of shares of stock or other securities or property of this Corporation or otherwise, to which a holder of Class A Voting Common Stock deliverable upon conversion would have been entitled in connection with such event and, in any such case, appropriate adjustment shall be made in the application of the provisions of this Section 3 with respect to the rights of the holders of the Preferred Stock after such event to the end that the provisions of this Section 3 (including adjustment of the Conversion Price then in effect and the number of shares purchasable upon conversion of the Preferred Stock) shall be applicable after that event as nearly equivalently as may be practicable.

(g) No Fractional Shares and Certificate as to Adjustments.

(i) No fractional shares shall be issued upon the conversion of any share or shares of the Preferred Stock and the aggregate number of shares of Class A Voting Common Stock to be issued to particular stockholders, shall be rounded down to the nearest whole share and the Corporation shall pay in cash the fair market value of any fractional shares as of the time when entitlement to receive such fractions is determined. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Class A Voting Common Stock and the number of shares of Class A Voting Common Stock issuable upon such conversion.

(ii) Upon the occurrence of each adjustment or readjustment of the Conversion Price of any series of Preferred Stock pursuant to this Section 3, this Corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of such series of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. This Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (A) such adjustment and readjustment, (B) the Conversion Price of such series of Preferred Stock at the time in effect, and (C) the number of shares of Class A Voting Common Stock and the amount, if any, of other property that at the time would be received upon the conversion of a share of such series of Preferred Stock.

(h) Notices of Record Date. In the event of any taking by this Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, this Corporation shall deliver by registered or certified mail, return receipt requested and postage prepaid, by hand delivery or by overnight delivery, to each holder of Preferred Stock, at least ten (10) days prior to the date specified therein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution, and the amount and character of such dividend or distribution; provided that, notwithstanding the foregoing, no notice may be effectively given by registered or certified mail to Morningside.

(i) Reservation of Stock Issuable Upon Conversion. This Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Class A Voting Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Class A Voting Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Class A Voting Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, in addition to such other remedies as shall be available to the holder of such Preferred Stock, this Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Class A Voting Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Restated Certificate of Incorporation.

(j) Waiver of Adjustment to Conversion Price. Notwithstanding anything herein to the contrary, any downward adjustment of (i) the Conversion Price of the Series D Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the Required Holders, (ii) the Conversion Price of the Series C-1 Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of at least a majority of the outstanding shares of Series C-1 Stock, (iii) the Conversion Price of the Series C Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of at least a majority of the outstanding shares of Series C Stock, (iv) the Conversion Price of the Series B Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of at least sixty-five percent (65%) of the outstanding shares of Series B Stock, (v) the Conversion Price of the Series A-l Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of a majority of the outstanding shares of Series A-1 Stock and (vi) the Conversion Price of the Series A Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of a majority of the outstanding shares of Series A Stock. Any such waiver shall bind all future holders of shares of such series of Preferred Stock.

(k) Definition of "Class A Voting Common Stock". As used in this Section 3, the term "**Class A Voting Common Stock**" shall mean and include this Corporation's authorized Class A Voting Common Stock, par value $0.001 per share, as constituted on the Filing Date and shall also include any security of this Corporation thereafter authorized which

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shall not be limited to a fixed sum or percentage in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon a Liquidation Event; provided that the shares of Class A Voting Common Stock issuable upon conversion of shares of Preferred Stock shall include only shares designated as Class A Voting Common Stock of this Corporation on the Filing Date, or in the event that the Class A Voting Common Stock is converted into other securities or property, whether pursuant to a recapitalization, reorganization, merger, consolidation or otherwise, the stock, securities or property provided for in Section 3(f).

4. Notices. Any notice or other communication required or permitted by the provisions of this Article II.B to be given to any holder of shares of Preferred Stock shall be deemed delivered if deposited in the United States mail, postage prepaid or if delivered by overnight delivery, and addressed to each holder of record at his address appearing on the books of this Corporation; provided that, notwithstanding the foregoing, no notice may be effectively given by United States mail to Morningside.

5. Voting Rights.

(a) General Voting Rights. In addition to any special class or series voting rights provided herein, under the General Corporation Law or otherwise, the holder of each share of Preferred Stock shall have the right to one vote for each share of Class A Voting Common Stock into which such share of Preferred Stock could then be converted, and with respect to such vote, such holder shall have full voting rights and powers equal to the voting rights and powers of the holders of Class A Voting Common Stock, and shall be entitled, notwithstanding any provision hereof, to notice of any stockholders' meeting in accordance with the Bylaws of this Corporation and shall be entitled to vote, together with holders of Class A Voting Common Stock, with respect to any question upon which holders of Class A Voting Common Stock have the right to vote (subject to the provisions of Section 5(b) with respect to the election of directors). Fractional votes shall not, however, be permitted and any fractional voting rights available on an as-converted basis (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward).

(b) Voting for the Election of Directors. The authorized number of directors comprising the Board shall be ten (10) directors. The holders of a majority of the outstanding shares of Class A Voting Common Stock shall be entitled to elect two (2) directors of this Corporation at any election of directors. The holders of a majority of the outstanding shares of Series B Stock shall be entitled to elect two (2) directors of this Corporation at any election of directors. The holders of a majority of the outstanding shares of Series C Stock shall be entitled to elect two (2) directors of this Corporation at any election of directors. Xeraya LT Ltd ("**Xeraya**") shall be entitled to designate one (1) director of this Corporation at any election of directors for so long as it owns any shares of Series D Stock. The holders of Preferred Stock and Class A Voting Common Stock, voting together as a single class and not as separate classes or series, on an as converted to Class A Voting Common Stock basis, shall be entitled to elect the remaining directors of this Corporation.

Notwithstanding the provisions of Section 223(a)(1) and 223(a)(2) of the General Corporation Law, any vacancy, including newly created directorships resulting from any increase in the authorized number of directors or amendment of this Restated Certificate of Incorporation, and vacancies created by removal or resignation of a director, may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election and until their successors are duly elected and shall qualify, unless sooner displaced; provided, however, that where such vacancy occurs among the directors elected by the holders of a class or series of stock, the holders of shares of such class or series may override the Board of Directors' action to fill such vacancy by (i) voting for their own designee to fill such vacancy at a meeting of this Corporation's stockholders or (ii) written consent, if the consenting stockholders hold a sufficient number of shares to elect their designee at a meeting of the stockholders. Any director may be removed during his or her term of office, either with or without cause, by, and only by, the affirmative vote of the holders of a majority of the shares of the class or series of stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders, and any vacancy thereby created may be filled by the holders of that class or series of stock represented at the meeting or pursuant to written consent.

6. Protective Provisions.

(a) In addition to any other vote or consent required herein or by law, the affirmative vote or written consent of the holders of a majority of the outstanding shares of a series of Preferred Stock shall be necessary for effecting any amendment, alteration, waiver, or repeal of any provision of the Certificate of Incorporation or the Bylaws of this Corporation that alters or changes the voting or other powers, preferences, or other special rights, privileges or restrictions of such series of Preferred Stock (whether by amendment, merger, consolidation or otherwise) so as to affect such series of Preferred Stock adversely and in a manner different than any other series of Preferred Stock (it being understood that a series of Preferred Stock shall not be affected differently because of the proportional differences in the amounts of respective issue prices and liquidation preference amounts that arise out of differences in the original issue price vis-a-vis other series of Preferred Stock). For purposes of this provision, the Series D Stock, Series C Stock and Series C-1 Stock shall vote together as a single class on an as-if converted to Class A Voting Common Stock basis.

(b) So long as any shares of Preferred Stock are outstanding, this Corporation shall not, by amendment to this Restated Certificate of Incorporation or by merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent, as provided by law) of the Required Holders and any such act or transaction entered into without such vote or written consent shall be null and void ab initio and of no force or effect:

(i) amend, alter, waive or repeal any provision of this Corporation's Certificate of Incorporation or Bylaws;

(ii) increase or decrease (other than by redemption or conversion) the total number of authorized shares of Preferred Stock;

(iii) create, or authorize the creation of, or issue or obligate itself to issue shares of, any class or series of capital stock or any security convertible into or exercisable or exchangeable for any capital stock unless such capital stock or the capital stock issuable upon conversion, exercise or exchange of such security, as the case may be, ranks junior to the rights, preferences and privileges of each series of Preferred Stock with respect to the distribution of assets in connection with a Liquidation Event, the payment of dividends and voting and redemption rights; or increase the authorized number of shares of any series of Preferred Stock; or issue or sell any shares of Series D Stock other than pursuant to the Purchase Agreement;

(iv) redeem, purchase or otherwise acquire (or pay into or set aside for a sinking fund for such purpose) any share or shares of Preferred Stock or Common Stock, any security convertible into or exercisable or exchangeable for any such shares or any other equity security; provided, however, that this restriction shall not apply to the repurchase of shares of Common Stock from employees, officers, directors, consultants or other persons performing services for this Corporation or any subsidiary pursuant to agreements under which this Corporation has the option to repurchase such shares upon the termination of employment or service of any such person; and provided, further, that this restriction shall not apply to the repurchase of shares of Preferred Stock or Common Stock pursuant to that certain Global Access Rights Letter Agreement dated February 18, 2011.

(v) authorize, or enter into any agreement on behalf of this Corporation or its stockholders which provides for, (A) the sale, assignment, exclusive license or other disposition of any material asset or (B) the acquisition of any material asset or security;

(vi) permit any majority-owned subsidiary to authorize, or permit any majority-owned subsidiary to enter into any agreement which provides for, (A) the sale, assignment, exclusive license or other disposition of any material asset or (B) the acquisition of any material asset or security;

(vii) take any action that results in the payment or declaration of a dividend or other distribution on any shares of Common Stock or Preferred Stock, any security convertible into or exercisable or exchangeable for any such shares or any other equity security;

(viii) liquidate, dissolve or wind-up the business and affairs of this Corporation; authorize, or enter into any agreement on behalf of this Corporation or its stockholders which provides for, any Liquidation Event or any merger, consolidation, reorganization, reclassification or recapitalization; or consent to any of the foregoing;

(ix) change the authorized number of directors of this Corporation;

(x) enter into any transaction, or permit any majority-owned subsidiary to enter into any transaction, in which this Corporation or such subsidiary shall loan, incur or guarantee indebtedness if the principal amount of such borrowing, loan or guarantee when added to the aggregate, consolidated outstanding amount of all other borrowings, loans and

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guarantees incurred by this Corporation and its majority-owned subsidiaries following the Filing Date would exceed $500,000;

(xi) permit any majority-owned subsidiary of this Corporation to authorize or issue any security to any person or entity other than to this Corporation; sell, assign, encumber, convey or otherwise dispose of any security of any subsidiary of this Corporation; spin-off or spin-out (through a distribution, transfer or otherwise) any technology, businesses, assets or securities; or permit any majority-owned subsidiary of this Corporation to spin-off or spin-out (through a distribution, transfer or otherwise) any technology, businesses, assets or securities; or

(xii) authorize or issue any shares of Common Stock, securities by their terms convertible into, exercisable or exchangeable for Common Stock or options to purchase or rights to subscribe for such convertible or exercisable or exchangeable securities to any employee, director, officer, consultant or other service provider of this Corporation or any of its majority-owned subsidiaries, other than Common Stock issued pursuant to (A) the exercise of stock options granted pursuant to an Option Plan, or (B) restricted stock awards or stock options issued or granted pursuant to an Option Plan.

7. Status of Converted Stock. In the event any shares of Preferred Stock shall be converted pursuant to Section 3 hereof, the preferred shares so converted shall be cancelled and shall not be issuable by this Corporation. This Restated Certificate of Incorporation shall be appropriately amended to effect the corresponding reduction in this Corporation's authorized capital stock.

C. Common Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Common Stock are as set forth below in this Article IV(C).

1. Dividend Rights. Subject to the prior written consent of the Required Holders and the prior rights of holders of all classes of stock at the time outstanding having prior rights as to dividends, the holders of the Common Stock shall be entitled to receive, when, as and if declared by the Board of Directors, out of any assets of this Corporation legally available therefor, any dividends as may be declared from time to time by the Board of Directors, *provided*, *however*, that no dividends shall be paid on the Class A Voting Common Stock unless the same dividend shall be concurrently declared and paid on the Class B Nonvoting Common Stock and no dividends shall be paid on the Class B Nonvoting Common Stock unless the same dividend shall be concurrently declared and paid on the Class A Voting Common Stock.

2. Liquidation Rights. Upon a Liquidation Event, the assets of this Corporation shall be distributed as provided in Section 2 of Article IV(B) hereof.

3. Mandatory Conversion.

(a) Each share of Class B Nonvoting Common Stock shall automatically be converted into one (1) share of Class A Voting Common Stock, as adjusted for stock dividends, stock divisions or combinations, immediately upon the authorization of such conversion by the Board of Directors and approved by the holders of a majority of the then issued and outstanding shares of Class A Voting Common Stock.

(b) Each share of Class B Nonvoting Common Stock which remains outstanding immediately prior to the date of the closing of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offering and sale of Common Stock for the account of this Corporation (the "**IPO**") shall automatically be converted into one (1) share of Class A Voting Common Stock, as adjusted for stock dividends, stock divisions or combinations immediately prior to, and contingent upon, the closing of the IPO.

(c) Conversion under this Section 3 shall be automatic, without need for any further action by the holders of shares of Class B Nonvoting Common Stock and regardless of whether the certificates representing such shares are surrendered to this Corporation or its transfer agent; provided, however, that this Corporation shall not be obligated to issue certificates evidencing the shares of Class A Voting Common Stock issuable upon such conversion unless certificates evidencing such shares of Class B Nonvoting Common Stock so converted are surrendered to this Corporation or the holder of record of such shares notifies this Corporation that such certificates have been lost, stolen or destroyed and such holder executes an agreement to indemnify this Corporation from any loss incurred by it in connection with such certificates. All holders of shares of Class B Nonvoting Common Stock, subject to the mandatory conversion provisions set forth in (a) and (b) above shall be given at least ten (10) days prior written notice of the date fixed and place designated for mandatory conversion of the Class B Nonvoting Common Stock. Such notice shall be sent by first class mail, postage pre-paid, to each holder of the Class B Nonvoting Common Stock at such holder's address as shown on the records of this Corporation. On or before the date so fixed for such conversion, each such holder of shares of Class B Nonvoting Common Stock shall surrender his certificate(s) for all such shares to this Corporation at the place designated in such notice and shall thereafter receive certificate(s) for the number of shares of Class A Voting Common Stock to which the holder is entitled.

4. Redemption. The Common Stock is not redeemable at the option of the holder.

5. Voting Rights.

(a) The holder of each share of Class A Voting Common Stock shall have the right to one (1) vote for each such share, and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of this Corporation, and shall be entitled to vote upon such matters and in such manner as may be provided by law. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of capital stock having a majority of the voting power of this Corporation (voting together on an as-if converted to Class A Voting Common Stock basis), irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

(b) Except as otherwise required by applicable law, the holders of the Class B Nonvoting Common Stock shall not be entitled to vote.

ARTICLE V

Subject to the prior written consent of the Required Holders as provided in this Restated Certificate of Incorporation, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of this Corporation; provided, however, that, subject to the prior written consent of the Required Holders as provided in this Restated Certificate of Incorporation, the stockholders may make, repeal, alter, amend and rescind any Bylaw adopted by the Board of Directors and no amendment or supplement to the Bylaws adopted by the Board of Directors shall vary or conflict with any amendment or supplement adopted by the stockholders.

ARTICLE VI

The number of directors of this Corporation shall be determined in the manner set forth in the Bylaws of this Corporation.

ARTICLE VII

Elections of directors need not be by written ballot unless the Bylaws of this Corporation shall so provide.

ARTICLE VIII

Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of this Corporation may provide. The books of this Corporation may be kept (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of this Corporation.

ARTICLE IX

A director of this Corporation shall not be personally liable to this Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to this Corporation or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law, or (iv) for any transaction from which the director derived any improper personal benefit. If the General Corporation Law is amended after approval by the stockholders of this Article IX to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of this Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article IX by the stockholders of this Corporation shall not adversely affect any right or protection of a director of this Corporation existing at the time of, or increase the liability of any director of this Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

ARTICLE X

Certain holders of Preferred Stock have the right of first offer with respect to issuances by this Corporation of certain of its equity securities as set forth in, and subject to the terms and conditions set forth in, a Fifth Amended and Restated Investors' Rights Agreement by and among this Corporation and certain of its stockholders, as such agreement may be amended from time to time.

ARTICLE XI

This Corporation shall indemnify its directors, and shall provide for advancement of the expenses of such persons, to the fullest extent provided by Section 145 of the General Corporation Law. To the fullest extent permitted by applicable law, this Corporation is authorized to provide indemnification of (and advancement of expenses to) agents of this Corporation (and any other persons to which General Corporation Law permits this Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law, subject only to limits created by applicable General Corporation Law (statutory or non-statutory), with respect to actions for breach of duty to this Corporation, its stockholders, and others.

Any amendment, repeal or modification of the foregoing provisions of this Article XI shall not adversely affect any right or protection of a director, officer, agent, or other person existing at the time of, or increase the liability of any director of this Corporation with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

ARTICLE XII

Pursuant to Section 122(17) of the General Corporation Law, this Corporation hereby renounces any interest or expectancy of this Corporation or any subsidiary of this Corporation in, or in being offered an opportunity to participate in, any and all business opportunities that are presented to the holders of Preferred Stock or their affiliates (including, without limitation, any representative or affiliate of such holders of Preferred Stock serving on the Board of Directors or the board of directors or other governing body of any subsidiary of this Corporation (each, a "**Board**")) (collectively, the "**Investor Parties**"). Without limiting the foregoing renunciation, this Corporation on behalf of itself and its majority-owned subsidiaries (a) acknowledges that the Investor Parties are in the business of making investments in, and have or may have investments in, other businesses similar to and that may compete with the businesses of this Corporation and its subsidiaries ("**Competing Businesses**") and (b) agrees that the Investor Parties shall have the unfettered right to make investments in or have relationships with other Competing Businesses independent of their investments in this Corporation. By virtue of an Investor Party holding capital stock of this Corporation or by having persons designated by or affiliated with such Investor Party serving on or observing at meetings of any Board or otherwise, no Investor Party shall have any obligation to this Corporation, any of its subsidiaries or any other holder of capital stock or securities of this Corporation to refrain from

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competing with this Corporation and any of its subsidiaries, making investments in or having relationships with Competing Businesses, or otherwise engaging in any commercial activity and none of this Corporation, any of its majority-owned subsidiaries or any other holder of capital stock or securities of this Corporation shall have any right with respect to any investment or activities undertaken by such Investor Party. Without limitation of the foregoing, each Investor Party may engage in or possess any interest in other business ventures of any nature or description, independently or with others, similar or dissimilar to the business of this Corporation or any of its subsidiaries, and none of this Corporation, any of its majority-owned subsidiaries or any other holder of capital stock or securities of this Corporation shall have any rights or expectancy by virtue of such Investor Parties' relationships with this Corporation, or otherwise in and to such independent ventures or the income or profits derived therefrom; and the pursuit of any such ventures, even if such investment is in a Competing Business, shall not for any purpose be deemed wrongful or improper. No Investor Party shall be obligated to present any particular investment opportunity to this Corporation or its subsidiaries even if such opportunity is of a character that, if presented to this Corporation or such subsidiary, could be taken by this Corporation or such subsidiary, and each Investor Party shall continue to have the right for its own respective account or to recommend to others any such particular investment opportunity.

* * *

THIRD: The foregoing amendment and restatement was approved by the holders of the requisite number of shares of said corporation in accordance with Section 228 of the General Corporation Law.

FOURTH: That said Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation's Restated Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this Corporation as of January 31, 2018.

Liquidia Technologies, Inc.

By: /s/ Neal Fowler
Neal Fowler, Chief Executive Officer

Exhibit 3.2

CERTIFICATE OF CORRECTION

OF

LIQUIDIA TECHNOLOGIES, INC.

Liquidia Technologies, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

1. The name of the corporation is Liquidia Technologies, Inc.

2. An Amended and Restated Certificate of Incorporation ("**Certificate**") was filed with the Secretary of State of the State of Delaware on February 2, 2018, and that said Certificate requires correction as permitted by Section 103 of the General Corporation Law of the State of Delaware.

3. The inaccuracy or defect of said Certificate is as follows:

Subsection B (3)(a) of Article Fourth thereof inaccurately states, due to clerical error, that (i) the current Conversion Price of the Series A Stock shall be $0.82460, (ii) the current Conversion Price of the Series A-1 Stock shall be $1.4067, (iii) the current Conversion Price of the Series B Stock shall be $1.49140, (iv) the current Conversion Price of the Series C Stock shall be $0.66938, and (v) the current Conversion Price of the Series C-1 Stock shall be $0.66938.

4. Subsection B (3)(a) of Article Fourth of the Certificate is corrected in its entirety to read as follows:

(a) Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, at the office of this Corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Class A Voting Common Stock as is determined by dividing the Original Issue Price for such series of Preferred Stock (determined in accordance with subsection 2(f) above) by the applicable conversion price of such series of Preferred Stock (the "**Conversion Price**") (such quotient being referred to herein as the "**Conversion Rate**"), determined as hereafter provided, in effect on the date that such holder provides written notice to this Corporation that it has elected to convert such share. The current Conversion Price of the Series A Stock shall be $0.82674; the current Conversion Price of the Series A-1 Stock shall be $1.41037; the current Conversion Price of the Series B Stock shall be $1.49526; the current Conversion Price of the Series C Stock shall be $0.67111; the current Conversion Price of the Series C-1 Stock shall be $0.67111; and the initial Conversion Price of the Series D Stock shall be $0.59808. The foregoing Conversion Price for each of the Series A Stock, Series A-1 Stock, Series B Stock, Series C Stock, Series C-1 Stock and Series D Stock reflects all deemed issuances of Additional Stock and reflects all prior Conversion Price adjustments and the assumed prospective issuance of $25,500,000 of shares of Series D Stock. The Conversion Price applicable to each series of Preferred Stock set forth above shall be subject to further adjustment as set forth in this Section 3.

[signature page to follow]

IN WITNESS WHEREOF, said corporation has caused this Certificate of Correction to be executed this 7th day of March, 2018.

By: /s/ Kevin Gordon
Name: Kevin Gordon
Title: President and Chief Financial Officer

Exhibit 3.4

FOURTH AMENDMENT OF THE
BYLAWS
OF
LIQUIDIA TECHNOLOGIES, INC.

THIS FOURTH AMENDMENT of the Bylaws of Liquidia Technologies, Inc. (the "**Corporation**" is dated to be effective as of June 29, 2017.

1. The Bylaws of the Corporation shall be amended to delete the first sentence of Section 2 of Article III in its entirety and to substitute the following sentence in lieu thereof:

"The number of Directors of the Corporation shall not be less than one (1) nor more than ten (10) as may be fixed or changed from time to time, within the minimum and maximum, by the stockholders or by the Board of Directors."

2. Except as set forth above the Bylaws shall be unchanged and remain in full force and effect.

This is to certify that the above Fourth Amendment of the Bylaws was duly adopted by the Board of Directors and stockholders by action taken, without a meeting, June 29, 2017 and June 29, 2017, respectively.

/s/ Shawn Glidden
Shawn Glidden, Secretary

THIRD AMENDMENT OF THE
BYLAWS
OF
LIQUIDIA TECHNOLOGIES, INC.

THIS THIRD AMENDMENT of the Bylaws of Liquidia Technologies, Inc. (the "**Corporation**") is dated to be effective as of January 8, 2010.

1. The Bylaws of the Corporation shall be amended to delete the first sentence of Section 2 of Article III in its entirety and to substitute the following sentence in lieu thereof:

"The number of Directors of the Corporation shall be not less than One (1) nor more than Nine (9) as may be fixed or changed from time to time, within the minimum and maximum, by the stockholders or by the Board of Directors."

2. Except as set forth above, the Bylaws shall be unchanged and remain in full force and effect.

This is to certify that the above Third Amendment of the Bylaws was duly adopted by the Board of Directors and stockholders by action taken, without a meeting, January 7, 2010 and January 8, 2010, respectively.

/s/ Fred D. Hutchison
Fred D. Hutchison, Secretary

SECOND AMENDMENT OF THE
BYLAWS
OF
LIQUIDIA TECHNOLOGIES, INC.

THIS SECOND AMENDMENT of the Bylaws of Liquidia Technologies, Inc. (the "**Corporation**") is dated to be effective as of June 30, 2009.

1. The Bylaws of the Corporation shall be amended to delete the first sentence of Section 4(b) of Article VII in its entirety and substituting the following sentence in lieu thereof:

"No stockholder or involuntary transferee shall dispose of or transfer any shares of the Corporation which such stockholder now owns or may hereafter acquire except as set forth in this Section 4; provided, however, that the provisions of this Section shall not be applicable to shares of preferred stock of the Corporation ("**Preferred Stock**") or to shares of common stock of the Corporation issued upon conversion of Preferred Stock."

2. Except as set forth above, the Bylaws shall be unchanged and remain in full force and effect.

This is to certify that the above Second Amendment to Bylaws was duly adopted by the Board of Directors and stockholders by action taken, without a meeting, effective June 30, 2009.

/s/ Fred D. Hutchison
Fred D. Hutchison, Secretary

FIRST AMENDMENT OF
BYLAWS
OF
LIQUIDIA TECHNOLOGIES, INC.

THIS FIRST AMENDMENT of the Bylaws of Liquidia Technologies, Inc. (the "**Corporation**") is dated to be effective as of February 27, 2007.

1. The Bylaws of the Corporation shall be amended to delete Section 4(a) of Article VII in its entirety and substituting the following subsection in lieu thereof:

"(a) In the event of any conflict between the terms of this Section 4 of Article VII and any written agreement between the Corporation and any stockholder of the Corporation, the terms of such written agreement shall control, and the provisions of this Section shall not be applicable."

2. Except as set forth above, the Bylaws shall be unchanged and remain in full force and effect.

This is to certify that the above First Amendment to Bylaws was duly adopted by the Board of Directors by action taken, without a meeting, effective February 27, 2007.

/s/ Fred D. Hutchison
Fred D. Hutchison, Secretary

BYLAWS

OF

LIQUIDIA TECHNOLOGIES, INC.

ARTICLE I
OFFICES

1. Principal Office. The principal office of the Corporation shall be located in Orange County, North Carolina or such other place as is designated by the Board of Directors.

2. Registered Office. The registered office of the Corporation required by law to be maintained in the State of Delaware may be, but need not be, identical with the principal office.

3. Other Offices. The Corporation may have offices at such other places, either within or without the State of Delaware, as the Board of Directors may from time to time determine or as the affairs of the Corporation may require.

ARTICLE II
MEETINGS OF STOCKHOLDERS

1. Place of Meetings. All meetings of stockholders shall be held at the principal office of the Corporation or at such other place, either within or without the State of Delaware, as shall be designated in the notice of the meeting or agreed upon by the Board of Directors.

2. Annual Meeting. Unless directors are elected by written consent in lieu of an annual meeting, the annual meeting of the stockholders shall be held at the principal office of the Corporation during the month of April of each year on any day in that month (except a Saturday, Sunday or a legal holiday) and at such time as is determined by the Board of Directors, for the purpose of electing Directors of the Corporation and for the transaction of such other business as may be properly brought before the meeting.

3. Substitute Annual Meeting. If the annual meeting shall not be held on the day designated by these Bylaws, a substitute annual meeting may be called in accordance with the provisions of Section 4 of this Article II. A meeting so called shall be designated and treated for all purposes as the annual meeting. The shares represented at such substitute annual meeting, either in person or by proxy, and entitled to vote thereat, shall constitute a quorum for the purpose of such meeting.

4. Special Meetings. Special meetings of the stockholders may be called at any time by the President, the Secretary or the Board of Directors of the Corporation, or by any stockholder pursuant to the written request of the holders of not less than one-tenth (1/10) of all the shares entitled to vote at the meeting.

5. Notice of Meetings.

(a) Written or printed notice stating the time and place of the meeting shall be delivered not less than ten (10) nor more than sixty (60) days before the date thereof, either personally or by mail, by or at the direction of the Board of Directors, President, Secretary or other person calling the meeting, to each stockholder of record entitled to vote at such meeting. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail addressed to the stockholder at such stockholder's address as it appears on the record of stockholders of the Corporation, with postage thereon prepaid.

(b) In the case of an annual or substitute annual meeting, the notice of meeting need not specifically state the business to be transacted thereat unless it is a matter, other than election of Directors, on which the vote of the stockholders is expressly required by the provisions of the Delaware Corporation Law. In the case of a special meeting, the notice of meeting shall specifically state the purpose or purposes for which the meeting is called.

(c) When a meeting is adjourned for thirty (30) days or more, or when a new record date is fixed after the adjournment for the adjourned meeting, notice of the adjourned meeting shall be given as in the case of an original meeting. When a meeting is adjourned for less than thirty (30) days in any one adjournment and a new record date is not fixed, it is not necessary to give any notice of the time and place of the adjourned meeting or of the business to be transacted thereat other than by announcement at the meeting at which the adjournment is taken.

6. Voting Lists. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notices of the meeting, or , if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. The stock ledger shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list of stockholders or the books of the corporation, or to vote in person or by proxy at any meeting of stockholders and of the number of shares held by each such stockholder.

7. Quorum.

(a) Unless otherwise provided by law, the holders of a majority of the shares

entitled to vote, represented in person or by proxy, shall constitute a quorum at a meeting of stockholders. When a quorum is present at the original meeting, any business which might have been transacted at the original meeting may be transacted at an adjourned meeting, even when a quorum is not present. In the absence of a quorum at the opening of any meeting of stockholders, such meeting may be adjourned from time to time by the Board of Directors or the vote of a majority of the shares voting on the motion to adjourn, but no other business may be transacted until and unless a quorum is present. If later a quorum is present at an adjourned meeting, then any business may be transacted which might have been transacted at the original meeting.

(b) The stockholders at a meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of sufficient stockholders to leave less than a quorum.

8. Voting of Shares.

(a) Unless otherwise provided in the Certificate of Incorporation, each outstanding share having voting rights shall be entitled to one vote on each matter submitted to a vote at a meeting of stockholders.

(b) Except in the election of Directors, when a quorum is present at any meeting, the vote of a majority of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter, shall be the act of the stockholders on that matter, unless a vote by a greater number is required by law or by the charter or Bylaws of the Corporation.

(c) Voting on all matters except the election of Directors shall be by voice vote or by a show of hands unless the holders of one-tenth (1/10) of the shares represented at the meeting shall, prior to the voting on any matter, demand a ballot vote on that particular matter.

(d) Shares of its own stock owned by the Corporation, directly or indirectly, through a subsidiary or otherwise, shall not be voted and shall not be counted in determining the total number of shares entitled to vote; except that shares held in a fiduciary capacity may be voted and shall be counted to the extent provided by law.

9. Proxies. Shares may be voted either in person or by one or more agents authorized by a written proxy executed by the stockholder or by such stockholder's duly authorized attorney-in-fact. A proxy is not valid after the expiration of three years from the date of its execution, unless the person executing it specifies therein the length of time for which it is to continue in force, or limits its use to a particular meeting.

10. Inspectors of Election.

(a) Appointment of Inspectors of Election. In advance of any meeting of stockholders, the Board of Directors may appoint any persons, other than nominees for office, as inspectors of election to act at such meeting or any adjournment thereof. If inspectors of election are not so appointed, the chairman of any such meeting may appoint inspectors of election at the meeting. The number of inspectors shall be either one or three. In case any person appointed as

inspector fails to appear or fails or refuses to act, the vacancy may be filled by appointment by the Board of Directors in advance of the meeting or at the meeting by the person acting as chairman.

(b) Duties of Inspectors. The inspectors of election shall determine the number of shares outstanding and the voting power of each, the shares represented at the meeting, the existence of a quorum, the authenticity, validity and effect of proxies, receive votes, ballots or consents, hear and determine all challenges and questions in any way arising in connection with the right to vote, count and tabulate all votes or consents, determine the result and do such acts as may be proper to conduct the election or vote with fairness to all stockholders. The inspectors of election shall perform their duties impartially, in good faith, to the best of their ability and as expeditiously as is practical.

(c) Vote of Inspectors. If there are three inspectors of election, the decision, act or certificate of a majority shall be effective in all respects as the decision, act or certificate of all.

(d) Report of Inspectors. On request of the chairman of the meeting, the inspectors shall make a report in writing of any challenge or question or matter determined by them and shall execute a certificate of any fact found by them. Any report or certificate made by them shall be a prima facie evidence of the facts stated therein.

11. Informal Action by Stockholders.

(a) Any action which is required or permitted to be taken at a meeting of the stockholders may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed and dated by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Such signed and dated consent must be filed with the Secretary of the Corporation to be kept in the Corporate minute book, whether done before or after the action so taken, but in no event later than sixty (60) days after the earliest dated consent delivered in accordance with this section. Delivery made to the Secretary of the Corporation shall be by hand or by certified or registered mail, return receipt requested. When corporate action is taken without a meeting by less than unanimous written consent, prompt notice shall be given to those stockholders who have not consented in writing.

(b) Stockholders may act by written consent to elect directors; provided, however, that, if such consent is less than unanimous, such action by written consent may be in lieu of holding an annual meeting only if all of the directorships to which directors could be elected at an annual meeting held at the effective time of such action are vacant and are filled by such action.

ARTICLE III
DIRECTORS

1. General Powers. The business and affairs of the Corporation shall be managed by the Board of Directors or by such committees as the Board may establish pursuant to these Bylaws.

2. Number, Term and Qualification. The number of Directors of the Corporation shall be not less than One (1) nor more than Seven (7) as may be fixed or changed from time to time, within the minimum and maximum, by the stockholders or by the Board of Directors. Each Director shall hold office until such Director's death, resignation, retirement, removal, disqualification, or such Director's successor is elected and qualifies. Directors need not be residents of the State of Delaware or stockholders of the Corporation.

3. Election of Directors. Except as provided in Section 5 of this Article III and unless directors are elected by written consent in lieu of an annual meeting, the Directors shall be elected at the annual meeting of stockholders. Those persons who receive the highest number of votes shall be deemed to have been elected. Unless otherwise provided in the Certificate of Incorporation, election of Directors shall be by written ballot.

4. Removal. Directors may be removed from office with or without cause by a vote of stockholders holding a majority of the outstanding shares entitled to vote at an election of Directors. If a director is elected by a voting group of stockholders, only the stockholders of that voting group may participate in the vote to remove him. If any Directors are so removed, new Directors may be elected at the same meeting.

5. Vacancies. A vacancy occurring in the Board of Directors, including, without limitation, a vacancy created by an increase in the authorized number of Directors or resulting from the stockholders' failure to elect the full authorized number of Directors, may be filled by the Board of Directors or if the Directors remaining in office constitute less than a quorum of the Directors, they may fill the vacancy by the affirmative vote of a majority of all remaining Directors or by the sole remaining Director. If the vacant office was held by a Director elected by a voting group, only the remaining Director or Directors elected by that voting group or the holders of shares of that voting group are entitled to fill the vacancy. A Director elected to fill a vacancy shall be elected for the unexpired term of such Director's predecessor in office. The stockholders may elect a Director at any time to fill any vacancy not filled by the Directors.

6. Compensation. The Board of Directors may provide for the compensation of Directors for their services as such and may provide for the payment of any and all expenses incurred by the Directors in connection with such services.

7. Committees.

(a) The Board of Directors, by resolution adopted by a majority of the number of Directors then in office, may designate one or more committees, each committee to consist of one or more of the Directors of the Corporation. The Board may designate one or more Directors as alternate members of any committee, who may replace any absent or disqualified member at

any meeting of the committee. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (a) adopting, amending or repealing any bylaw of the Corporation or (b) approving or adopting, or recommending to the stockholders any action or matter expressly required by law to be submitted to stockholders for approval. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board of Directors. Each committee shall keep regular minutes of its meetings and make such reports to the Board of Directors as the Board of Directors may request. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the Directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these Bylaws for the conduct of its business by the Board of Directors.

(b) Any resolutions adopted or other action taken by any such committee within the scope of the authority delegated to it by the Board of Directors shall be deemed for all purposes to be adopted or taken by the Board of Directors. The designation of any committee and the delegation thereto of authority shall not operate to relieve the Board of Directors, or any member thereof, of any responsibility or liability imposed upon it or him by law.

(c) If a committee member is absent or disqualified, the qualified members present at a meeting, even if not a quorum, may unanimously appoint another Board of Directors member to act in the absent or disqualified member's place.

(d) Regular meetings of any such committee may be held without notice at such time and place as such committee may fix from time to time by resolution. Special meetings of any such committee may be called by any member thereof upon not less than two day's notice stating the place, date and hour of such meeting, which notice may be given by any usual means of communication. Any member of a committee may waive notice of any meeting and no notice of any meeting need be given to any member thereof who attends in person. The notice of a committee meeting need not state the business proposed to be transacted at the meeting.

(e) A majority of the members of any such committee shall constitute a quorum for the transaction of business at any meeting thereof, and actions of such committee must be authorized by the affirmative vote of a majority of the members of such committee.

(f) Any member of any such committee may be removed at any time with or without cause by resolution adopted by a majority of the Board of Directors.

(g) Any such committee shall elect a presiding officer from among its members and may fix its own rules of procedure which shall not be inconsistent with these Bylaws. It shall keep regular minutes of its proceedings and report the same to the Board of Directors for its information at the meeting thereof held next after the proceedings shall have been taken.

ARTICLE IV
MEETINGS OF DIRECTORS

1. Regular Meetings. If an annual meeting of the stockholders is convened, a regular meeting of the Board of Directors shall be held immediately after, and at the same place as, the annual meeting of stockholders. In addition, the Board of Directors may provide, by resolution, the time and place for the holding of additional regular meetings.

2. Special Meetings. Special meetings of the Board of Directors may be called by or at the request of the Chairman of the Board (if one has been duly elected), the President or any two Directors.

3. Notice of Meetings.

(a) Regular meetings of the Board of Directors may be held without notice.

(b) The person or persons calling a special meeting of the Board of Directors shall, at least two days before the meeting, give notice thereof by any usual means of communication. Such notice or waiver of notice shall specify the business to be transacted at, or the purpose of, the meeting that is called. Notice of an adjourned meeting need not be given if the time and place are fixed at the meeting adjourning and if the period of adjournment does not exceed ten (10) days in any one adjournment.

(c) A Director may waive notice of any meeting. Attendance by a Director at a meeting shall constitute a waiver of notice of such meeting, except where a Director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened.

4. Quorum. A majority of the Directors in office immediately before the meeting shall constitute a quorum for the transaction of business at any meeting of the Board of Directors.

5. Manner of Acting.

(a) The act of a majority of the Directors then in office shall be the act of the Board of Directors, unless a greater number is required by law, the charter of the Corporation, or a Bylaw adopted by the stockholders.

(b) A Director of the Corporation, who is present at a meeting of the Board of Directors at which action on any corporate matter is taken, shall be presumed to have assented to the action taken unless such Director's contrary vote is recorded or such Director's dissent is otherwise entered in the minutes of the meeting or unless he or she shall file such Director's written dissent to such action with the person acting as the secretary of the meeting before the adjournment thereof or shall forward such dissent by registered mail to the Secretary of the Corporation immediately after the adjournment of the meeting. Such right of dissent shall not apply to a Director who voted in favor of such action.

6. Action By Consent. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may by taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board or committee.

7. Attendance by Telephone. Any one or more Directors or members of a committee may participate in a meeting of the Board or committee by means of a conference telephone or similar communications device which allows all persons participating in the meeting to hear each other, and such participation in the meeting shall be deemed presence in person at such meeting.

ARTICLE V
OFFICERS

1. Number. The officers of the Corporation shall consist of a President, a Secretary, a Treasurer, and such Vice Presidents, Assistant Secretaries, Assistant Treasurers and other officers as the Board of Directors may from time to time elect. Any two or more offices, other than that of President and Secretary, may be held by the same person. In no event, however, may an officer act in more than one capacity where action of two or more officers is required.

2. Election and Term. The officers of the Corporation shall be elected by the Board of Directors. Such election may be held at any regular or special meeting of the Board or without a meeting by consent as provided in Article IV, Section 6 of these Bylaws. Each officer shall hold office until such officer's death, resignation, retirement, removal, disqualification, or such officer's successor is elected and qualifies.

3. Removal. Any officer or agent elected or appointed by the Board of Directors may be removed by the Board with or without cause; but such removal shall be without prejudice to the contract rights, if any, of the person so removed.

4. Compensation. The compensation of all officers of the Corporation shall be fixed by the Board of Directors.

5. President. The President shall be the chief executive officer of the Corporation and, subject to the control of the Board of Directors, shall supervise and control the management of the Corporation in accordance with these Bylaws. He shall, in the absence of a Chairman of the Board of Directors, preside at all meetings of the Board of Directors and stockholders. He shall sign, with any other proper officer, certificates for shares of the Corporation and any deeds, mortgages, bonds, contracts, or other instruments which may be lawfully executed on behalf of the Corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be delegated by the Board of Directors to some other officer or agent; and, in general, he shall perform all duties incident to the office of President and such other duties as may be prescribed by the Board of Directors from time to time.

6. Vice Presidents. The Vice Presidents, in the order of their appointment, unless

otherwise determined by the Board of Directors, shall, in the absence or disability of the President, perform the duties and exercise the powers of that office. In addition, they shall perform such other duties and have such other powers as the President or the Board of Directors shall prescribe. The Board of Directors may designate one or more Vice Presidents to be responsible for certain functions, including, without limitation, Marketing, Finance, Manufacturing and Personnel.

7. Secretary. The Secretary shall keep accurate records of the acts and proceedings of all meetings of stockholders, Directors and committees. He or she shall give all notices required by law and by these Bylaws. He or she shall have general charge of the corporate books and records and of the corporate seal, and he or she shall affix the corporate seal to any lawfully executed instrument requiring it. He or she shall have general charge of the stock transfer books of the Corporation and shall keep, at the registered or principal office of the Corporation, a record of stockholders showing the name and address of each stockholder and the number and class of the shares held by each. He or she shall sign such instruments as may require his/her signature, and, in general, attest the signature or certify the incumbency or signature of any other officer of the Corporation and shall perform all duties incident to the office of Secretary and such other duties as may be assigned him from time to time by the President or by the Board of Directors.

8. Treasurer. The Treasurer shall have custody of all funds and securities belonging to the Corporation and shall receive, deposit or disburse the same under the direction of the Board of Directors. He or she shall keep full and accurate accounts of the finances of the Corporation in books especially provided for that purpose, which may be consolidated or combined statements of the Corporation and one or more of its subsidiaries as appropriate, that include a balance sheet as of the end of the fiscal year, an income statement for that year, and a statement of cash flows for the year unless that information appears elsewhere in the financial statements. If financial statements are prepared for the Corporation on the basis of generally accepted accounting principles, the annual financial statements must also be prepared on that basis. The Treasurer shall, in general, perform all duties incident to his/her office and such other duties as may be assigned to him from time to time by the President or by the Board of Directors.

9. Assistant Secretaries and Treasurers. The Assistant Secretaries and Assistant Treasurers shall, in the absence or disability of the Secretary or the Treasurer, perform the respective duties and exercise the respective powers of those offices, and they shall, in general, perform such other duties as shall be assigned to them by the Secretary or the Treasurer, respectively, or by the President or by the Board of Directors.

10. Controller and Assistant Controllers. The Controller, if one has been appointed, shall have charge of the accounting affairs of the Corporation and shall have such other powers and perform such other duties as the Board of Directors shall designate. Each Assistant Controller shall have such powers and perform such duties as the President may be assigned by the Board of Directors, and the Assistant Controllers shall exercise the powers of the Controller during that officer's absence or inability to act.

11. Bonds. The Board of Directors, by resolution, may require any or all officers, agents and employees of the Corporation to give bond to the Corporation, with sufficient sureties,

conditioned on the faithful performance of the duties of their respective offices or positions, and to comply with such other conditions as may from time to time be required by the Board of Directors.

ARTICLE VI
CONTRACTS, LOANS AND DEPOSITS

1. Contracts. The Board of Directors may authorize any officer or officers, or agent or agents, to enter into any contract or execute and deliver any instrument on behalf of the Corporation, and such authority may be general or confined to specific instances.

2. Loans. No loans shall be contracted on behalf of the Corporation and no evidence of indebtedness shall be issued in its name unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances.

3. Checks and Drafts. All checks, drafts or other orders for the payment of money issued in the name of the Corporation shall be signed by such officer or officers, or agent or agents, of the Corporation and in such manner as shall from time to time be determined by resolution of the Board of Directors.

4. Deposits. All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such depository or depositories as the Board of Directors shall direct.

ARTICLE VII
CERTIFICATES FOR SHARES AND OTHER TRANSFERS

1. Certificates for Shares. Certificates representing shares of the Corporation shall be issued, in such form as the Board of Directors shall determine, to every stockholder for the fully paid shares owned by him. These certificates shall be signed by the President or any Vice President or a person who has been designated as the chief executive officer of the Corporation and by the Secretary, Assistant Secretary, Treasurer or Assistant Treasurer and sealed with the seal of the Corporation or a facsimile thereof. The signatures of any such officers upon a certificate may be facsimiles or may be engraved or printed or omitted if the certificate is countersigned by a transfer agent, or registered by a registrar, other than the Corporation itself or an employee of the Corporation. In case any officer who has signed or whose facsimile or other signature has been placed upon such certificate shall have ceased to be such officer before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer at the date of its issue. The certificates shall be consecutively numbered or otherwise identified; and the name and address of the persons to whom they are issued, with the number of shares and date of issue, shall be entered on the stock transfer books of the Corporation.

2. Transfer of Shares. Transfer of shares shall be made on the stock transfer books of the

Corporation only upon surrender of the certificates for the shares sought to be transferred by the record holder thereof or by such holder's duly authorized agent, transferee or legal representative. All certificates surrendered for transfer shall be canceled before new certificates for the transferred shares shall be issued.

3. Transfer Agent and Registrar. The Board of Directors may appoint one or more transfer agents and one or more registrars of transfer and may require all stock certificates to be signed or countersigned by the transfer agent and registered by the registrar of transfers.

4. Restrictions on Transfer.

(a) If the Corporation has elected Subchapter S status under Section 1362 of the Internal Revenue Code of 1986, as amended, no stockholder or involuntary transferee shall dispose of or transfer any shares of the Corporation which such stockholder now owns or may hereafter acquire if such disposition or transfer would result in the termination of such Subchapter S status, unless such disposition or transfer is consented to by all stockholders of the Corporation. Any such disposition or transfer that does not comply with the terms of this Section 4 shall be void and have no legal force or effect and shall not be recognized on the share transfer books of the Corporation as effective.

(b) No stockholder or involuntary transferee shall dispose of or transfer any shares of the Corporation which such stockholder now owns or may hereafter acquire except as set forth in this Section 4. Any purported transfer or disposition of shares in violation of the terms of this Section 4 shall be void and the Corporation shall not recognize or give any effect to such transaction.

(c) An individual stockholder shall be free to transfer, during such stockholder's lifetime or by testamentary transfer, any or all of such stockholder's shares of the Corporation to such stockholder's spouse, any of such stockholder's children, grandchildren or direct lineal descendants, whether by blood or by adoption, spouses of such issue, parents, siblings, or direct lineal descendents, whether by blood or by adoption, of such siblings or a trust or family limited partnership for the sole benefit of those persons or any of them, a Section 501(c)(3) organization or a non-profit foundation or other non-profit organization; and a stockholder which is a partnership, corporation or limited liability company shall be free to transfer any or all of its shares of the Corporation to its partners, stockholders or members, respectively, if there is no consideration for such transfer; but, in case of any such transfer, the transferee shall be bound by all the terms of this provision and no further transfer of such shares shall be made by such transferee except back to the stockholder who originally owned them or except in accordance with the provisions of this Section 4 of Article VII.

(d) Any stockholder, or transferee of such stockholder, who wishes to transfer all or any part of such stockholder's shares of the Corporation (hereinafter "offeror"), other than as permitted in subparagraph (c) above, first shall submit a written offer to sell such shares to the Corporation at the same price per share and upon the same terms and conditions offered by a bona fide prospective purchaser of such shares. Such written offer to the Corporation shall continue to be a binding offer to sell until: (1) rejected by the Corporation; or (2) the expiration

of a period of thirty (30) days after delivery of such written offer to the Corporation, whichever shall first occur.

(e) Every written offer submitted in accordance with the provisions of this Section 4 shall specifically name the person to whom the offeror intends to transfer the shares, the number of shares which such offeror intends so to transfer to each person and the price per share and other terms upon which each intended transfer is to be made. Upon the termination of all such written offers, the offeror shall be free to transfer, for a period of three (3) months thereafter, any unpurchased shares to the persons so named at the price per share and upon the other terms and conditions so named, provided that any such transferee of those shares shall thereafter be bound by all the provisions of these Bylaws.

(f) Every written offer submitted to the Corporation shall be deemed to have been delivered when delivered to the principal office of the Corporation or if and when sent by prepaid certified mail, or delivered by hand to the President of the Company at the principal office of the Corporation.

(g) If any consideration to be received by the offeror for the shares offered is property other than cash, then the price per share shall be measured to the extent of the fair market value of such noncash consideration.

(h) The provisions contained herein shall not apply to the pledge of any shares of the Corporation as collateral for a loan but shall apply to the sale or other disposition of shares under any such pledge.

(i) In the event of any conflict between the terms of this Section 4 of Article VII and any written agreement between the Corporation and any stockholder of the Corporation, the terms of such written agreement shall control, and the provisions of this Section shall not be applicable.

(j) The restrictions set forth in this Section 4 shall terminate upon the closing of a public offering of securities of the Corporation registered under the Securities Act of 1933, as amended.

(k) Every certificate representing shares of the Corporation shall bear the following legend prominently displayed:

"The shares represented by this certificate, and the transfer thereof, are subject to the restrictions on transfer provisions of the Bylaws of the Corporation, a copy of which is on file in, and may be examined at, the principal office of the Corporation."

5. Closing Transfer Books and Fixing Record Date.

(a) For the purpose of determining the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the

record date is adopted by the Board of Directors, and which record date shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, such record date shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. Such determination of stockholders of record shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) For the purpose of determining the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. If no record date has been fixed by the Board of Directors, such record date, when no prior action by the Board of Directors is required by this chapter, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is filed with the Secretary of the Corporation. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by the Delaware Corporation Law, such record date shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) For the purpose of determining the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights, or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

6. Lost Certificates. The Board of Directors may authorize the issuance of a new share certificate in place of a certificate claimed to have been lost or destroyed, upon receipt of an affidavit of such fact from the person claiming the loss or destruction. When authorizing such issuance of a new certificate, the Board may require the claimant to give the Corporation a bond in such sum as it may direct to indemnify the Corporation against loss from any claim with respect to the certificate claimed to have been lost or destroyed; or the Board may, by resolution reciting that the circumstances justify such action, authorize the issuance of the new certificate without requiring such a bond.

7. Holder of Record. The Corporation may treat as absolute owner of the shares the person in whose name the shares stand of record on its books just as if that person had full competency, capacity, and authority to exercise all rights of ownership irrespective of any knowledge or notice to the contrary or any description indicating a representative, pledge or other fiduciary relation or any reference to any other instrument or to the rights of any other person appearing upon its record or upon the share certificate; except that any person furnishing to the Corporation proof of his/her appointment as a fiduciary shall be treated as if he or she were a

holder of record of the Corporation’s shares.

8. Treasury Shares. Treasury shares of the Corporation shall consist of such shares as have been issued and thereafter acquired but not canceled by the Corporation. Treasury shares shall not carry voting or dividend rights, except rights in share dividends.

ARTICLE VIII
INDEMNIFICATION AND REIMBURSEMENT OF DIRECTORS AND OFFICERS

1. Indemnification for Expenses and Liabilities. Any person who at any time serves or has served (i) as a director, officer, employee or agent of the Corporation, (ii) at the request of the Corporation as a director, officer, partner, trustee, employee or agent of another foreign or domestic corporation, partnership, joint venture, trust, or other enterprise, or (iii) at the request of the Corporation as a trustee or administrator under an employee benefit plan, or is called as a witness at a time when he or she has not been made a named defendant or respondent to any Proceeding, shall have a right to be indemnified by the Corporation to the fullest extent from time to time permitted by law against Liability and Expenses in any Proceeding (including without limitation a Proceeding brought by or on behalf of the Corporation itself) arising out of his or her status as such or activities in any of the foregoing capacities.

The Board of Directors of the Corporation shall take all such action as may be necessary and appropriate to authorize the Corporation to pay the indemnification required by this provision, including without limitation, to the extent needed, making a good faith evaluation of the manner in which the claimant for indemnity acted and of the reasonable amount of indemnity due him or her.

Any person who at any time serves or has served in any of the aforesaid capacities for or on behalf of the Corporation shall be deemed to be doing or to have done so in reliance upon, and as consideration for, the rights provided for herein. Any repeal or modification of these indemnification provisions shall not affect any rights or obligations existing at the time of such repeal or modification. The rights provided for herein shall inure to the benefit of the legal representatives of any such person and shall not be exclusive of any other rights to which such person may be entitled apart from this provision.

The rights granted herein shall not be limited by the provisions contained in Section 145 of the Delaware Corporation Law or any successor to such statute.

2. Advance Payment of Expenses. The Corporation shall (upon receipt of an undertaking by or on behalf of the director, officer, employee or agent involved to repay the Expenses described herein unless it shall ultimately be determined that he or she is entitled to be indemnified by the Corporation against such Expenses) pay Expenses incurred by such director, officer, employee or agent in defending a Proceeding or appearing as a witness at a time when he or she has not been named as a defendant or a respondent with respect thereto in advance of the final disposition of such Proceeding.

3. Insurance. The Corporation shall have the power to purchase and maintain insurance (on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another domestic or foreign corporation, partnership, joint venture, trust or other enterprise or as a trustee or administrator under an employee benefit plan) against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability.

4. Definitions. The following terms as used in this Article shall have the following meanings. “Proceeding” means any threatened, pending or completed action, suit, or proceeding and any appeal therein (and any inquiry or investigation that could lead to such action, suit, or proceeding), whether civil, criminal, administrative, investigative or arbitrative and whether formal or informal. “Expenses” means expenses of every kind, including counsel fees. “Liability” means the obligation to pay a judgment, settlement, penalty, fine (including an excise tax assessed with respect to an employee benefit plan), reasonable expenses incurred with respect to a Proceeding, and all reasonable expenses incurred in enforcing the indemnification rights provided herein. “Director,” “officer,” “employee” and “agent” include the estate or personal representative of a director, officer, employee or agent. “Corporation” shall include any domestic or foreign predecessor of this Corporation in a merger or other transaction in which the predecessor’s existence ceased upon consummation of the transaction.

ARTICLE IX
GENERAL PROVISIONS

1. Dividends. The Board of Directors may from time to time declare, and the Corporation may pay, dividends on its outstanding shares in the manner and upon the terms and conditions provided by law and by its charter.

2. Seal. The corporate seal shall have the name of the corporation inscribed thereon and shall be in such form of as may be approved from time to time by the Board of Directors. Such seal may be an impression or stamp and may be used by the officers of the Corporation by causing it, or a facsimile thereof, to be impressed or affixed or in any other manner reproduced. In addition to any form of seal adopted by the Board of Directors, the officers of the Corporation may use as the corporate seal a seal in the form of a circle containing the name of the Corporation and the state of its incorporation (or an abbreviation thereof) on the circumference and the word “Seal” in the center.

3. Waiver of Notice. Whenever any notice is required to be given to any stockholder or Director under the provisions of the Delaware Corporation Law or under the provisions of the charter or Bylaws of the Corporation, a waiver thereof in writing signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be equivalent to the giving of such notice.

4. Fiscal Year. The fiscal year of the Corporation shall be determined by the Board of Directors.

5. Form of Records. Any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account, and minute books, may be kept on, or be in the form of, punch cards, magnetic tape, photographs, microphotographs, or any other information storage device; provided that the records so kept can be converted into clearly legible form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect the same.

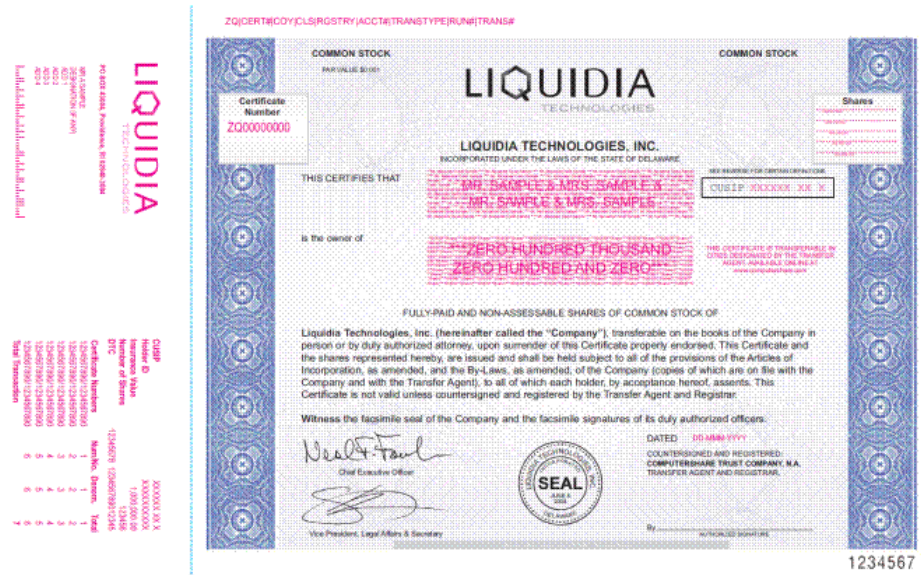
6. Amendments. Except as otherwise provided herein, these Bylaws may be amended or repealed and new Bylaws may be adopted by the affirmative vote of stockholders entitled to exercise a majority of voting power of the Corporation, or, if the Certificate of Incorporation of the Corporation so permits, by the affirmative vote of a majority of the Directors then holding office at any regular or special meeting of the Board of Directors or by unanimous written consent.

No Bylaw adopted or amended by the stockholders may be altered or repealed by the Board of Directors, except to the extent that such Bylaw provision expressly authorizes its amendment or repeal by the Board of Directors.

All terms used in these Bylaws shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the context may require.

THIS IS TO CERTIFY that the above Bylaws were duly adopted by the Board of Directors of the Corporation by action taken, without a meeting, effective June 8, 2004.

/s/ Fred D. Hutchison
Fred D. Hutchison, Secretary



ZQ|CERT#|COY|CLS|RGSTRY|ACCT#|TRANSTYPE|RUN#|TRANS#

COMMON STOCK

PAR VALUE $0.001

COMMON STOCK

LIQUIDIA TECHNOLOGIES

Certificate Number

ZQ00000000

Shares

LIQUIDIA TECHNOLOGIES, INC.

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

THIS CERTIFIES THAT

MR. SAMPLE & MRS. SAMPLE X

MR. SAMPLE & MRS. SAMPLE

CUSIP XXXXXX XX X

is the owner of

ZERO HUNDRED THOUSAND ZERO HUNDRED AND ZERO

THE CERTIFICATE IS TRANSFERABLE IN CITIES DESIGNATED BY THE TRANSFER AGENT. AVAILABLE ONLINE AT www.computershare.com

FULLY-PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK OF

Liquidia Technologies, Inc. (hereinafter called the "Company"), transferable on the books of the Company in person or by duly authorized attorney, upon surrender of this Certificate properly endorsed. This Certificate and the shares represented hereby, are issued and shall be held subject to all of the provisions of the Articles of Incorporation, as amended, and the By-Laws, as amended, of the Company (copies of which are on file with the Company and with the Transfer Agent), to all of which each holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

Witness the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.

DATED: DD-MMM-YYYY

Chief Executive Officer

Vice President, Legal Affairs & Secretary

SEAL

COUNTERSIGNED AND REGISTERED:
COMPUTERSHARE TRUST COMPANY, N.A.
TRANSFER AGENT AND REGISTRAR,

By _____ AUTHORIZED SIGNATURE

1234567

LIQUIDIA

PO BOX 43004, Providence, RI 02940-3004

SECURITY # XXXXXXXXX

ADD 1

ADD 2

ADD 3

ADD 4

CUSIP
Holder ID
Insurance Value
Number of Shares
DTC

Certificate Numbers

Num No. Denom. Total

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LIQUIDIA TECHNOLOGIES, INC.

THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH SHAREHOLDER WHO SO REQUESTS, A SUMMARY OF THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OF THE COMPANY AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND RIGHTS, AND THE VARIATIONS IN RIGHTS, PREFERENCES AND LIMITATIONS DETERMINED FOR EACH SERIES, WHICH ARE FIXED BY THE ARTICLES OF INCORPORATION OF THE COMPANY, AS AMENDED, AND THE RESOLUTIONS OF THE BOARD OF DIRECTORS OF THE COMPANY, AND THE AUTHORITY OF THE BOARD OF DIRECTORS TO DETERMINE VARIATIONS FOR FUTURE SERIES. SUCH REQUEST MAY BE MADE TO THE OFFICE OF THE SECRETARY OF THE COMPANY OR TO THE TRANSFER AGENT. THE BOARD OF DIRECTORS MAY REQUIRE THE OWNER OF A LOST OR DESTROYED STOCK CERTIFICATE, OR HIS LEGAL REPRESENTATIVES, TO GIVE THE COMPANY A BOND TO INDEMNIFY IT AND ITS TRANSFER AGENTS AND REGISTRARS AGAINST ANY CLAIM THAT MAY BE MADE AGAINST THEM ON ACCOUNT OF THE ALLEGED LOSS OR DESTRUCTION OF ANY SUCH CERTIFICATE.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM - as tenants in common	UNIF GIT MIN ACT -	(Cust) Custodian (Minor)
TEN ENT - as tenants by the entireties		under Uniform Gifts to Minors Act (State)
JT TEN - as joint tenants with right of survivorship and not as tenants in common	UNIF TRF MIN ACT -	(Cust) Custodian (until age) (Minor) under Uniform Transfers to Minors Act (State)

Additional abbreviations may also be used though not in the list.

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

For value received, _____ hereby sell, assign and transfer unto

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING POSTAL ZIP CODE, OF ASSIGNEE)

_____

_____

_____ Shares

of the common stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ Attorney

to transfer the said stock on the books of the within-named Company with full power of substitution in the premises.

Dated: _____ 20____

Signature: _____

Signature: _____

Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

Signature(s) Guaranteed: Medallion Guarantee Stamp

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (Banks, Stockbrokers, Savings and Loan Associations and Credit Unions) WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM, PURSUANT TO S.E.C. RULE 17Ad-15.

SECURITY INSTRUCTIONS

THIS IS WATERMARKED PAPER - DO NOT ACCEPT WITHOUT NOTING WATERMARK - HOLD TO LIGHT TO VERIFY WATERMARK

The IRS requires that the named transfer agent ("we") report the cost basis of certain shares or units acquired after January 1, 2011. If your shares or units are covered by the legislation, and you requested to sell or transfer the shares or units using a specific cost basis calculation method, then we have processed as you requested. If you did not specify a cost basis calculation method, then we have defaulted to the first in, first out (FIFO) method. Please consult your tax advisor if you need additional information about cost basis.

If you do not keep in contact with the issuer or do not have any activity in your account for the time period specified by state law, your property may become subject to state unclaimed property laws and transferred to the appropriate state.

1234567

June 28, 2018

Trude Amick
Director, Technology Department
Office of Commercialization & Economic Development
The University of North Carolina at Chapel Hill
100 Europa Drive, Suite 430
Chapel Hill, NC 27517
(p) 919-962-6289; (f) 919-962-0646

RE: 3rd Amendment to the 2016 Letter Agreement and Promissory Note between The University of North Carolina at Chapel Hill ("UNC") and Liquidia Technologies, Inc. ("Liquidia")

Dear Trude,

As you know, UNC and Liquidia entered into a letter agreement dated June 10, 2016, amended by a 1st Amendment, effective December 1, 2017 (the "**1st Amendment**"), as amended by a 2nd Amendment, effective June 15, 2018 (the "**2nd Amendment**" and, collectively with the 1st Amendment, the "**2016 Letter Agreement**"), which, in part, included an agreement to enter a promissory note on monies owed by Liquidia to UNC, which was also entered on June 10, 2016 (the "**Promissory Note**"). The Promissory Note originally had a maturity date of December 31, 2017, which maturity date was subsequently extended to June 30, 2018 and December 31, 2018 pursuant to the 1st Amendment and 2nd Amendment, respectively.

Pursuant to Section 7.4 of that certain Loan and Security Agreement, dated as of January 6, 2016, as amended (the "**LSA**"), by and between Liquidia and Pacific Western Bank, a California state chartered bank (the "**Bank**"), Liquidia may not, without the Bank's prior written consent, prepay any Indebtedness (as defined in the LSA) or take any actions which impose on Liquidia an obligation to prepay any Indebtedness, except Indebtedness to the Bank. UNC and Liquidia understand that the Bank has provided written consent to the prepayment modifications to the 2016 Letter Agreement and the Promissory Note set forth below.

This letter agreement shall serve as a third amendment to the 2016 Letter Agreement and the Promissory Note, whereby Liquidia and UNC hereby acknowledge and agree that, in the event that Liquidia consummates an initial public offering of its common stock in the United States in 2018 and (i) gross proceeds from such offering are at least $75 million, the entire outstanding loan amount under the Promissory Note shall become immediately due and payable; or (ii) the gross proceeds from such offering are greater than $50 million and less than $75 million, $600,000 of the outstanding loan amount under the Promissory Note shall become due and payable, with the remaining balance of the loan to be amortized and payable in equal monthly installments over the remaining term of the LSA until the loan amount is fully paid on October

10, 2020. In the event that Liquidia does not consummate an initial public offering of its common stock in the United States in 2018 or the gross proceeds from such offering are not greater than $50 million, Liquidia and UNC hereby acknowledge and agree that the entire outstanding loan amount under the Promissory Note shall be due and payable on December 31, 2018.

The parties intend for all other terms and conditions of the 2016 Letter Agreement, the Promissory Note and the subordination agreement between UNC and the Bank to continue in full force and effect.

The understandings set forth in this 3rd Amendment shall be effective on the date first written above upon countersigning by UNC below.

Sincerely,

/s/ Shawn Glidden
Shawn Glidden
VP Legal Affairs & Secretary
Liquidia Technologies, Inc.

Acknowledged & Agreed:
University of North Carolina at Chapel Hill

By: /s/ Jacqueline Quay
Name: Jacqueline Quay
Title: Director of Licensing, OTC

June 15, 2018

Trude Amick
Director, Technology Development
Office of Commercialization & Economic Development
The University of North Carolina at Chapel Hill
100 Europa Drive Suite 430
Chapel Hill, NC 27517
(p) 919-962-6289; (f) 919-962-0646

Dear Trude:

Re: 2nd Amendment to the 2016 Letter Agreement and Promissory Note between the University of North Carolina at Chapel Hill ("UNC") and Liquidia Technologies, Inc. ("Liquidia")

As you will recall, UNC and Liquidia entered into a letter agreement dated June 10, 2016, amended by a 1st Amendment, effective December 1, 2017, (collectively the "2016 Letter Agreement"), which, in part, included an agreement to enter a promissory note on monies owed by Liquidia to UNC, which was also entered on June 10, 2016, (the "Promissory Note"). As you will also recall, that Promissory Note includes a maturity date of December 31, 2017. Moreover, the 1st Amendment to the 2016 Letter Agreement extended such maturity date of the Promissory Note to June 30, 2018.

This letter agreement shall serve as an amendment to the 2016 Letter Agreement and the Promissory Note, whereby Liquidia and UNC hereby agree to extend the maturity date of the Promissory Note from June 30, 2018, to December 31, 2018 (the "2nd Amendment"). The parties intend for all other terms and condition of the 2016 Letter Agreement and the Promissory Note to continue in force as adjusted through the new maturity date of December 31, 2018, including but not limited to the continuation of interest under the applicable terms of the 2016 Letter Agreement (Section B) and the Promissory Note (Interest).

The understandings set forth in this 2nd Amendment shall be effective on the date first written above upon countersigning by UNC below.

Sincerely,

/s/ Shawn Glidden

Shawn Glidden
VP Legal Affairs & Secretary
Liquidia Technologies, Inc

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
ACCEPTED AND AGREED
By: /s/ Jacqueline Quay
Name: Jacqueline Quay
Title: Director of Licensing, OTC

December 1, 2017

Trude Amick
Director, Technology Development
Office of Commercialization & Economic Development
The University of North Carolina at Chapel Hill
100 Europa Drive Suite 430
Chapel Hill, NC 27517
(p) 919-962-6289; (f) 919-962-0646

Dear Trude:

Re: 1st Amendment to the 2016 Letter Agreement and Promissory Note between the University of North Carolina at Chapel Hill ("UNC") and Liquidia Technologies, Inc. ("Liquidia")

As you will recall, UNC and Liquidia entered into a letter agreement dated June 10, 2016, the 2016 Letter Agreement, which, in part, included an agreement to enter a promissory note on monies owed by Liquidia to UNC, which was also entered on June 10, 2016, the Promissory Note. As you will also recall, that Promissory Note includes a maturity date of December 31, 2017.

This letter agreement shall serve as an amendment to the 2016 Letter Agreement and the Promissory Note, whereby Liquidia and UNC hereby agree to extend the maturity date of the Promissory Note from December 31, 2017, to June 30, 2018 (the "1st Amendment"). The parties intend for all other terms and condition of the 2016 Letter Agreement and the Promissory Note to continue in force as adjusted through the new maturity date of June 30, 2018, including but not limited to the continuation of interest under the applicable terms of the 2016 Letter Agreement (Section B) and the Promissory Note (Interest).

The understandings set forth in this 1st Amendment shall be effective on the date first written above upon countersigning by UNC below.

Sincerely,

/s/ Shawn Glidden
Shawn Glidden
VP Legal Affairs & Secretary
Liquidia Technologies, Inc

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

ACCEPTED AND AGREED

By /s/ Jacqueline Quay

Name: Jacqueline Quay

Title: Director of Licensing, OTC

2016 LETTER AGREEMENT PROMISSORY NOTE

$ 2,165,179.81 ("Net Amount Due") **June 10, 2016 ("Effective Date")**

FOR VALUE RECEIVED, the undersigned, (the "Maker"), hereby promises to pay to the order of The University of North Carolina at Chapel Hill, ("Payee"), the principal sum of $2,165,179.81 pursuant to the terms and conditions set forth herein.

PAYMENT OF PRINCIPAL. The principal amount of this Promissory Note (the "Note") and any accrued but unpaid interest shall be due and payable in full no later than December 31, 2017.

INTEREST. This Note shall bear interest at the lesser of (i) the one-year LIBOR rate plus two percent or (ii) five percent in total, with such interest rate being reset annually on the anniversary of the issuance of the Promissory Note and interest compounding annually on such anniversary date.

PREPAYMENT. The Maker shall have the right at any time and from time to time to prepay this Note in whole or in part without premium or penalty.

REMEDIES. No delay or omission on part of the holder of this Note in exercising any right hereunder shall operate as a waiver of any such right or of any other right of such holder, nor shall any delay, omission or waiver on any one occasion be deemed a bar to or waiver of the same or any other right on any future occasion.

EVENTS OF ACCELERATION. The occurrence of the Maker becoming insolvent, filing for bankruptcy or entering receivership shall constitute an "Event of Acceleration" by Maker under this Note.

ACCELERATION. Upon the occurrence of an Event of Acceleration under this Note, and in addition to any other rights and remedies that Payee may have, Payee shall have the right, at its sole and exclusive option, to declare this Note immediately due and payable.

SUBORDINATION. The Maker's obligations under this Promissory Note are subordinated to all indebtedness, if any, of Maker, to any unrelated third party lender to the extent such indebtedness is outstanding on the date of this Note and such subordination is required under the loan documents providing for such indebtedness.

WAIVERS BY MAKER. All parties to this Note including Maker and any sureties, endorsers, and guarantors hereby waive protest, presentment, notice of dishonor, and notice of acceleration of maturity and agree to continue to remain bound for the payment of principal, interest and all other sums due under this Note notwithstanding any change or changes by way of release, surrender, exchange, modification or substitution of any security for this Note or by way of any extension or extensions of time for the payment of principal and interest; and all such parties waive all and every kind of notice of such change or changes and agree that the same may be made without notice or consent of any of them.

EXPENSES. In the event any payment under this Note is not paid in accord with the terms herein, the Maker agrees to pay, in addition to the principal and interest hereunder, reasonable attorneys' fees, plus all other reasonable expenses incurred by Payee in exercising any of its rights and remedies upon default.

GOVERNING LAW. This Note shall be governed by, and construed in accordance with, the laws of the State of North Carolina.

SUCCESSORS. All of the foregoing is the promise of Maker and shall bind Maker and Maker's successors, heirs and assigns.

IN WITNESS WHEREOF, Maker has executed this Promissory Note as of the day and year first above written.

Maker: Liquidia Technologies, Inc.

Signed: */s/ Shawn Glidden*

By: Shawn Glidden

Title: VP Legal Affairs & Secretary

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 BELOW, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: Liquidia Technologies, Inc., a Delaware corporation
Number of Shares: 24,199, subject to adjustment
Class of Stock: Series B Convertible Preferred Stock, $0.001 par value per share
Warrant Price: $3.558, subject to adjustment
Issue Date: March 28, 2008
Expiration Date: As set forth in Section 5.1 below
Credit Facility: This Warrant is issued in connection with that certain Loan and Security Agreement of even date herewith between Silicon Valley Bank and the Company.

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (Silicon Valley Bank, together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, is referred to hereinafter as "Holder") is entitled to purchase the number of fully paid and nonassessable shares (the "Shares") of the class of securities (the "Class") of the above-named company (the "Company") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Article 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant.

ARTICLE 1. EXERCISE.

1.1 Method of Exercise. Holder may exercise this Warrant by delivering the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached as Appendix 1 to the principal office of the Company. Unless Holder is exercising the conversion right set forth in Article 1.2, Holder shall also deliver to the Company a check, wire transfer (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Conversion Right. In lieu of exercising this Warrant as specified in Article 1.1, Holder may from time to time convert this Warrant, in whole or in part, into a number of Shares determined by dividing (a) the aggregate fair market value of the Shares or other securities otherwise issuable upon exercise of this Warrant minus the aggregate Warrant Price of such Shares by (b) the fair market value of one Share. The fair market value of the Shares shall be determined pursuant to Article 1.3.

1.3 Fair Market Value. If the Company's common stock is traded in a public market and the Shares are common stock, the fair market value of a Share shall be the closing price of a share of common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or in the instance where the Warrant is exercised immediately prior to the effectiveness of the Company's initial public offering ("IPO"), the "price to public" per share price specified in the final prospectus relating to such offering). If the Company's common stock is traded in a public market and the Shares are preferred stock, the fair market value of a Share shall be the closing price of a share of the Company's common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or, in the instance where the Warrant is exercised immediately prior to the effectiveness of the IPO, the initial "price to public" per share price specified in the final prospectus relating to such offering), in both cases, multiplied by the number of shares of the Company's common stock into which a Share is convertible. If the Company's common stock is not traded in a public market, the Board of Directors of the Company shall determine fair market value in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Promptly after Holder exercises or converts this Warrant and, if applicable, the Company receives payment of the aggregate Warrant Price, the Company shall deliver to Holder certificates for the Shares acquired and, if this Warrant has not been fully exercised or converted and has not expired, a new Warrant representing the Shares not so acquired.

1.5 Replacement of Warrants. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of mutilation, on surrender and cancellation of this Warrant, the Company shall execute and deliver, in lieu of this Warrant, a new warrant of like tenor.

1.6 Treatment of Warrant Upon Acquisition of Company.

1.6.1 "Acquisition". For the purpose of this Warrant, "Acquisition" means any sale, license, or other disposition of all or substantially all of the assets of the Company, or any reorganization, consolidation, merger or sale of outstanding capital stock of the Company where the holders of the Company's securities before the transaction beneficially own less than a majority of the outstanding voting securities of the surviving entity after the transaction.

1.6.2 Treatment of Warrant at Acquisition.

A) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition in which the sole consideration is cash, either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will expire upon the consummation of such Acquisition. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice),

which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

B) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition that is an "arms length" sale of all or substantially all of the Company's assets (and only its assets) to a third party that is not an Affiliate (as defined below) of the Company (a "True Asset Sale"), either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will continue until the Expiration Date if the Company continues as a going concern following the closing of any such True Asset Sale. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the Closing of the proposed Acquisition.

C) Upon the closing of any Acquisition other than those particularly described in subsections (A) and (B) above, the successor entity shall assume the obligations of this Warrant, and this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on the record date for the Acquisition and subsequent closing. The Warrant Price and/or number of Shares shall be adjusted accordingly.

As used in this Section 1.6, "Affiliate" shall mean any person or entity that owns or controls directly or indirectly ten percent (10%) or more of the stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person's or entity's officers, directors, joint venturers or partners, as applicable.

D) Notwithstanding the foregoing provisions of Section 1.6.2(C), in the event that the acquiror in an Acquisition does not agree to assume this Warrant at and as of the closing thereof, this Warrant, to the extent not exercised or converted on or prior to such closing, shall terminate and be of no further force or effect as of immediately following such closing if all of the following conditions are met: (i) the acquiror is subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended or is otherwise a public reporting company under the laws of Israel or any other nation, (ii) the class and series of shares or other security of the acquiror that would be received by Holder in connection with such Acquisition were Holder to exercise or convert this Warrant on or prior to the closing thereof is listed for trading on a national securities exchange or approved for quotation on an automated inter-dealer quotation system, (iii) the value (determined as of the closing of such Acquisition in accordance with the definitive agreements therefor) of the acquiror shares and/or other securities that would be received by Holder in respect of each Share were Holder to exercise or convert this Warrant on or prior to the closing of such Acquisition is equal to or greater than seven (7) times the then-effective Warrant Price, and (iv) Holder would be able to publicly resell, during the three (3) month period immediately following the closing of such Acquisition, without contractual restriction or restriction under applicable securities laws, all of the acquiror shares and/or other securities that would be received by Holder

in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing thereof.

ARTICLE 2. ADJUSTMENTS TO THE SHARES.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend on the outstanding shares of the Class payable in common stock or other securities, then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without cost to Holder, the total number and kind of securities to which Holder would have been entitled had Holder owned the Shares of record as of the date the dividend occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares or takes any other action which increase the amount of common stock into which the one share of the Class is convertible, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any reclassification, exchange, substitution, or other event that results in a change of the number and/or class of the securities issuable upon exercise or conversion of this Warrant, Holder shall be entitled to receive, upon exercise or conversion of this Warrant, the number and kind of securities and property that Holder would have received for the Shares if this Warrant had been exercised immediately before such reclassification, exchange, substitution, or other event. Such an event shall include, without limitation, any automatic conversion of the outstanding or issuable securities of the Company of the same class or series as the Shares to common stock pursuant to the terms of the Company's Articles or Certificate (as applicable) of Incorporation. The Company or its successor shall promptly issue to Holder an amendment to this Warrant setting forth the number and kind of such new securities or other property issuable upon exercise or conversion of this Warrant as a result of such reclassification, exchange, substitution or other event that results in a change of the number and/or class of securities issuable upon exercise or conversion of this Warrant. The amendment to this Warrant shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article 2 including, without limitation, adjustments to the Warrant Price and to the number of securities or property issuable upon exercise of the new Warrant. The provisions of this Article 2.2 shall similarly apply to successive reclassifications, exchanges, substitutions, or other events.

2.3 Adjustments for Diluting Issuances. The number of shares of common stock issuable upon conversion of the Shares shall be subject to adjustment, from time to time in the manner set forth in the Company's Articles or Certificate of Incorporation as if the Shares were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth for the Class in the Company's Articles or Certificate (as applicable) of Incorporation relating to the above in effect as of the Issue Date may not be amended, modified or waived, without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Shares in the same manner as such amendment, modification or waiver affects the rights associated with all other shares of the Class.

2.4 No Impairment. The Company shall not, by amendment of its Articles or Certificate (as applicable) of Incorporation or through a reorganization, transfer of assets, consolidation, merger, dissolution, issue, or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed under this Warrant by the Company, but shall at all times in good faith assist in carrying out of all the provisions of this Article 2 and in taking all such action as may be necessary or appropriate to protect Holder's rights under this Article against impairment.

2.5 Fractional Shares. No fractional Shares shall be issuable upon exercise or conversion of the Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional share interest arises upon any exercise or conversion of the Warrant, the Company shall eliminate such fractional share interest by paying Holder the amount computed by multiplying the fractional interest by the fair market value of a full Share.

2.6 Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company shall promptly notify Holder in writing, and, at the Company's expense, promptly compute such adjustment, and furnish Holder with a certificate of its Chief Financial Officer setting forth such adjustment and the facts upon which such adjustment is based. The Company shall, upon written request, furnish Holder a certificate setting forth the Warrant Price, Class and number of Shares in effect upon the date thereof and the series of adjustments leading to such Warrant Price, Class and number of Shares.

ARTICLE 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the price per share at which shares of the same class and series as the Shares were last issued in an arms-length transaction in which at least $500,000 of such shares were sold.

(b) All Shares which may be issued upon the exercise of the purchase right represented by this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, upon issuance, be duly authorized, validly issued, fully paid and nonassessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time (a) to declare any dividend or distribution upon the outstanding shares of the same class and series as the Shares, whether in cash, property, stock, or other securities and whether or not a regular cash dividend; (b) to offer for subscription or sale pro rata to the holders of the outstanding shares of the same class and series as the Shares any additional shares of any class or series of the Company's stock; (c) to effect any reclassification, reorganization or recapitalization of any of its stock; (d) to effect an

Acquisition or to liquidate, dissolve or wind up; or (e) offer holders of registration rights the opportunity to participate in an underwritten public offering of the Company's securities for cash, then, in connection with each such event, the Company shall give Holder: (1) at least 10 days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (c) and (d) above; (2) in the case of the matters referred to in (c) and (d) above at least 10 days prior written notice of the date when the same will take place (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event); and (3) in the case of the matter referred to in (e) above, the same notice as is given to the holders of such registration rights.

3.3 Registration Under Securities Act of 1933, as amended. The Company agrees that the Shares or, if the Shares are convertible into common stock of the Company, such common stock, shall have certain incidental, or "Piggyback," and S-3 registration rights pursuant to and as set forth in the Company's Investor Rights Agreement or similar agreement. The provisions set forth in the Company's Investor Rights Agreement or similar agreement relating to the above in effect as of the Issue Date may not be amended, modified or waived without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Shares in the same manner as such amendment, modification, or waiver affects the rights associated with all other shares of the same series and class as the Shares granted to the Holder.

3.4 No Shareholder Rights. Except as provided in this Warrant, Holder will not have any rights as a shareholder of the Company until the exercise of this Warrant.

3.5 Certain Information. The Company agrees to provide Holder at any time and from time to time with such information as Holder may reasonably request for purposes of Holder's compliance with regulatory, accounting and reporting requirements applicable to Holder.

ARTICLE 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER. The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder will be acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company

possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise or conversion hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise or conversion hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available.

ARTICLE 5. MISCELLANEOUS.

5.1 Term: Subject to Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before the earlier to occur (the "Expiration Date") of (i) the tenth (10^{th}) anniversary of the Issue Date hereof, or (ii) the date that is five (5) years following the effective date of the Company's registration statement filed in connection with the IPO, and shall be void thereafter.

5.2 Legends. This Warrant and the Shares (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) shall be imprinted with a legend in substantially the following form:

> THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE ACT, OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 OF THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE COMPANY TO SILICON VALLEY BANK DATED AS OF MARCH 28, 2008, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR

> HYPOTHECATION IS EXEMPT FROM REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issuable upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part without compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act.

5.4 Transfer Procedure. After receipt by Silicon Valley Bank ("Bank") of the executed Warrant, Bank will transfer all of this Warrant to SVB Financial Group, Holder's parent company. Subject to the provisions of Article 5.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant (or the securities issuable directly or indirectly, upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable). The Company may refuse to transfer this Warrant or the Shares to any person who directly competes with the Company, unless, in either case, the stock of the Company is publicly traded.

5.5 Notices. All notices and other communications from the Company to the Holder, or vice versa, shall be deemed delivered and effective when given personally or mailed by first-class registered or certified mail, postage prepaid, at such address as may have been furnished to the Company or Holder, as the case may (or on the first business day after transmission by facsimile) be, in writing by the Company or such holder from time to time. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

> SVB Financial Group
> Attn: Treasury Department
> 3003 Tasman Drive, HA 200
> Santa Clara, CA 95054
> Telephone: 408-654-7400
> Facsimile: 408-496-2405

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

> Liquidia Technologies, Inc.
> Attn:
> (ADDRESS)
> Telephone:

> Facsimile:

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorney's Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Automatic Conversion upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be converted pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised or converted, and the Company shall promptly deliver a certificate representing the Shares (or such other securities) issued upon such conversion to Holder.

5.9 Counterparts. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement.

5.10 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to its principles regarding conflicts of law.

"COMPANY"

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Bruce Boucher

Name: Bruce Boucher
(Print)

Title: President

"HOLDER"

SILICON VALLEY BANK

By: /s/ Corey Waters

Name: Corey Waters
(Print)

Title: Relationship Manager

APPENDIX 1

NOTICE OF EXERCISE

1. Holder elects to purchase shares of the Common/Series Preferred [strike one] Stock of pursuant to the terms of the attached Warrant, and tenders payment of the purchase price of the shares in full.

[or]

1. Holder elects to convert the attached Warrant into Shares/cash [strike one] in the manner specified in the Warrant. This conversion is exercised for of the Shares covered by the Warrant.

[Strike paragraph that does not apply.]

2. Please issue a certificate or certificates representing the Shares in the name specified below:

Holders Name

(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Article 4 of the Warrant as of the date hereof.

HOLDER:

By:

Name:

Title:

(Date):

SCHEDULE 1

Company Capitalization Table

See attached

Exhibit 4.4

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS AND MAY NOT BE TRANSFERRED OR OTHERWISE DISPOSED OF UNLESS THEY HAVE BEEN REGISTERED UNDER SUCH ACT AND ALL SUCH APPLICABLE LAWS OR AN EXEMPTION FROM SUCH REGISTRATION IS AVAILABLE.

, 2017

Warrant No. Shares

LIQUIDIA TECHNOLOGIES, INC.

WARRANT TO PURCHASE SHARES

This Warrant is issued to or its registered assigns by Liquidia Technologies, Inc., a Delaware corporation (the "***Company***"), pursuant to that certain Note and Warrant Purchase Agreement, dated as of January 9, 2017, as amended (the "***Purchase Agreement***"), which also provides for the Company's issuance of a Convertible Promissory Note (the "***Note***") to the holder ("***Holder***") of this Warrant.

1. Purchase of Shares. Subject to the terms and conditions hereinafter set forth, the holder of this Warrant is entitled, upon surrender of this Warrant at the principal office of the Company (or at such other place as the Company shall notify the holder hereof in writing), to purchase from the Company up to the number of fully paid and nonassessable Shares (as defined below) that equals the quotient obtained by dividing (a) an amount equal to twenty-five percent (25%) of the aggregate principal amount of the Note(s) issued to the Holder pursuant to the Purchase Agreement by (b) $0.79744 (as adjusted for any stock dividends, combinations, splits, recapitalizations and similar events with respect to the shares of the Company's Series C-1 Preferred Stock), as such number may be adjusted from time to time in accordance with the terms hereof. Repayment or conversion of the amount of the Note(s) issued to the Holder pursuant to the Purchase Agreement shall not affect the number of Shares issuable upon exercise of this Warrant.

2. Definitions. Capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms under the Note.

(a) Exercise Price. The exercise price for each Share (as adjusted from time to time in accordance with the terms hereof, the "***Exercise Price***") shall be $0.79744 (as adjusted for any stock dividends, combinations, splits, recapitalizations and similar events with respect to the shares of the Company's Series C-1 Preferred Stock); provided that the Exercise Price shall be reduced to $0.001 if a Singapore IPO has not occurred on or prior to August 1, 2017.

(b) Exercise Period. This Warrant shall be exercisable, in whole or in part, during the term commencing on the date hereof and ending on the expiration of this Warrant pursuant to Section 13 hereof.

(c) The Shares. Subject to Section 7(c), the term "***Shares***" shall mean: (i) shares of the Company's Series C-1 Preferred Stock unless the outstanding principal of, and accrued

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interest on, the Note is converted into shares of Automatic Conversion Stock or Voluntary Conversion Stock, in which case clause (ii) or clause (iii) of this definition, respectively, shall apply; (ii) if the outstanding principal of, and accrued interest on, the Note is converted into shares of Automatic Conversion Stock, shares of Automatic Conversion Stock and (iii) if the outstanding principal of, and accrued interest on, the Note is converted into shares of Voluntary Conversion Stock, shares of Voluntary Conversion Stock.

3. Method of Exercise. While this Warrant remains outstanding and exercisable in accordance with Section 2 above, the Holder may exercise, in whole or in part, the purchase rights evidenced hereby. Such exercise shall be effected by:

(a) the surrender of the Warrant, together with a notice of exercise to the President or Secretary of the Company at its principal offices substantially in the form attached hereto as Exhibit 1; and

(b) the payment to the Company, in cash, of an amount equal to the aggregate Exercise Price for the number of Shares being purchased.

4. Net Exercise. In lieu of cash exercising this Warrant, the holder of this Warrant may elect to receive shares equal to the value of this Warrant (or the portion thereof being canceled) by surrender of this Warrant to the President or Secretary of the Company at the principal office of the Company together with notice of such election, in which event the Company shall issue to the holder hereof a number of Shares computed using the following formula:

$$X = \frac{Y\,(A - B)}{A}$$

Where

X — The number of Shares to be issued to the holder of this Warrant.

Y — The number of Shares purchasable under this Warrant.

A — The fair market value of one Share.

B — The Exercise Price (as adjusted to the date of such calculations).

For purposes of this Section 4, the fair market value of a Share as determined in good faith by the Company's Board of Directors.

5. Certificates for Shares. Upon the exercise of the purchase rights evidenced by this Warrant, one or more certificates shall be issued representing the number of Shares so purchased, and a copy of such certificate or certificates shall be delivered to the registered holder thereof, as soon thereafter as reasonably practicable, and in any event within five (5) days of the delivery of the exercise notice and payment therefor.

6. Issuance of Shares. The Company covenants that the Shares, when issued pursuant to the exercise of this Warrant, will be duly and validly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issuance thereof.

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7. Adjustment of Exercise Price and Number of Shares. The number of and kind of securities purchasable upon exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time as follows:

(a) Subdivisions, Combinations and Other Issuances. If the Company shall at any time prior to the expiration of this Warrant subdivide the Shares, by split-up or otherwise, or combine its Shares, or issue additional Shares as a dividend, the number of Shares issuable on the exercise of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination. Appropriate adjustments shall also be made to the Exercise Price payable per Share, but the aggregate Exercise Price payable for the total number of Shares purchasable under this Warrant (as adjusted) shall remain the same. Any adjustment under this Section 7(a) shall become effective at the close of business on the date the subdivision or combination becomes effective, or as of the record date of such dividend, or in the event that no record date is fixed, upon the making of such dividend.

(b) Reclassification, Reorganization and Consolidation. In the event of any reclassification, capital reorganization, or change in the capital stock of the Company (other than as a result of a subdivision, combination, or stock dividend provided for in Section 7(a) above), then the holder of this Warrant shall have the right at any time prior to the expiration of this Warrant to purchase, at a total price equal to that payable upon the exercise of this Warrant, the kind and amount of shares of stock and other securities and property receivable in connection with such reclassification, reorganization, or change by a holder of the same number of Shares as were purchasable by the holder of this Warrant immediately prior to such reclassification, reorganization, or change. In any such case appropriate provisions shall be made with respect to the rights and interest of the holder of this Warrant so that the provisions hereof shall thereafter be applicable with respect to any shares of stock or other securities and property deliverable upon exercise hereof, and appropriate adjustments shall be made to the Exercise Price per Share payable hereunder, provided the aggregate Exercise Price shall remain the same.

(c) Conversion of Shares. Upon the conversion into Common Stock of all outstanding shares of the series of equity securities comprising the Shares, this Warrant shall become exercisable for that number of shares of Common Stock into which the Shares would then be convertible, so long as such shares, if this Warrant had been exercised before such offering, would have been converted into shares of Common Stock pursuant to the Company's Certificate of Incorporation. In such case, all references to "Shares" shall mean shares of Common Stock issuable upon exercise of this Warrant, as appropriate, and the Exercise Price shall be automatically adjusted to equal the number obtained by dividing (i) the aggregate Exercise Price of the Shares for which this Warrant was exercisable immediately prior to such conversion, by (ii) the number of shares of Common Stock for which this Warrant is exercisable immediately after such conversion.

(d) Notice of Adjustment. When any adjustment is required to be made in the number or kind of shares purchasable upon exercise of this Warrant, or in the Exercise Price, the Company shall promptly notify the Holder of such event and of the number of Shares or other securities or property thereafter purchasable upon exercise of this Warrant.

(e) Other Action Affecting Shares. In the event that the Company shall make a distribution in respect of the Shares that is not elsewhere described in this Section 7, the Holder shall be entitled, upon exercise of this Warrant, to receive from the Company its pro rata share of any such

distribution such that the Holder receives, upon exercise of this Warrant, the same type and amount of property which such Holder would have received if such Holder had exercised this Warrant immediately prior to such distribution or the date the Company shall take a record of the holders of its shares for purposes of such distribution, as applicable, and, from and after the date of such distribution, the Company shall hold and set aside (or cause to be held and set aside in a commercially reasonable manner) an amount of such property equal to the Holder's pro rata portion thereof for distribution to the Holder pursuant hereto.

8. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant, but in lieu of such fractional shares the Company shall make a cash payment therefor on the basis of the fair market value thereof then in effect.

9. Restrictive Legend.

The Shares issuable upon exercise of this Warrant (unless registered under the Securities Act of 1933, as amended (the "***Securities Act***")) shall be stamped or imprinted with a legend in substantially the following form:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS AND MAY NOT BE TRANSFERRED OR OTHERWISE DISPOSED OF UNLESS THEY HAVE BEEN REGISTERED UNDER SUCH ACT AND ALL SUCH APPLICABLE LAWS OR AN EXEMPTION FROM SUCH REGISTRATION IS AVAILABLE.

10. Warrants Transferable. Subject to compliance with the terms and conditions of this Section 10, this Warrant and all rights hereunder are transferable, in whole or in part, without charge to the holder hereof (except for transfer taxes), upon surrender of this Warrant properly endorsed or accompanied by a written instruction of transfer substantially in the form attached hereto as Exhibit 2; provided that the transferee consents in writing to be bound by the terms hereunder. With respect to any offer, sale or other disposition of this Warrant prior to registration of such Warrant, the holder hereof agrees to give written notice to the Company prior thereto, describing briefly the manner thereof and indicating whether or not under the Securities Act certificates for this Warrant require any restrictive legend as to applicable restrictions on transferability in order to ensure compliance with such law. Upon receiving such written notice and the written consent of the proposed transferee agreeing to be bound by the terms hereunder, the Company, as promptly as practicable, shall notify the Holder that it may sell or otherwise dispose of this Warrant, all in accordance with the terms of the notice delivered to the Company. Each certificate representing this Warrant transferred in accordance with this Section 10 shall bear a legend as to the applicable restrictions on transferability in order to ensure compliance with such laws, unless such legend is not required in order to ensure compliance with such laws. The Company may issue stop transfer instructions to its transfer agent in connection with such restrictions.

11. Rights of Stockholders. Except as expressly set forth in Section 7 hereof, no holder of this Warrant shall be entitled, as a Warrant holder, to vote or receive dividends or be deemed the holder of the Shares or any other securities of the Company which may at any time be issuable on

the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the holder of this Warrant, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights until the Warrant shall have been exercised.

12. Shares Subject to Stockholder Agreements. The Shares issued upon exercise of this Warrant shall be deemed "Preferred Stock", "Series C-1 Preferred Stock" and "Series C-1 Stock", each as defined in each of the (i) Fifth Amended and Restated Investors' Rights Agreement, (ii) Fifth Amended and Restated First Refusal and Co-Sale Agreement and (iii) Fifth Amended and Restated Voting Agreement, each dated as of February 18, 2011, by and among the Company and certain stockholders of the Company, and the Shares shall have all of the rights and be subject to all of the restrictions applicable to "Preferred Stock", "Series C-1 Preferred Stock" and "Series C-1 Stock" under such agreements; provided, however, that if this Warrant becomes exercisable for shares of Automatic Conversion Stock or Voluntary Conversion Stock (in accordance with Section 2(c) hereof), then such shares shall instead have the same rights and be subject to all of the restrictions applicable to such shares under such agreements.

13. Expiration of Warrant; Notice of Certain Events Terminating This Warrant.

(a) This Warrant shall expire and shall no longer be exercisable upon the earlier to occur of:

(i) 5:00 p.m. (Eastern time) on December 31, 2026; and

(ii) the consummation of a Strategic Transaction (as such term is defined in the Notes).

(b) The Company shall provide at least ten (10) days prior written notice to the Holder of any Strategic Transaction.

14. Notices. All notices and other communications required or permitted hereunder shall be in writing, shall be effective when given, and shall in any event be deemed to be given upon receipt or, if earlier, (a) five (5) days after deposit with the U.S. Postal Service or other applicable postal service, if delivered by first class mail, postage prepaid, (b) upon delivery, if delivered by hand, (c) one business day after the business day of deposit with Federal Express or similar overnight courier, freight prepaid or (d) one business day after the business day of facsimile transmission, if delivered by facsimile transmission with copy by first class mail, postage prepaid, and shall be addressed (i) if to the Holder, at the Holder's address as set forth in the Purchase Agreement and (ii) if to the Company, at the address of its principal corporate offices (attention: President) or at such other address as a party may designate by ten days advance written notice to the other party pursuant to the provisions above; provided that, notwithstanding the foregoing, no notice or communication may be effectively given under this Agreement by registered or certified mail to Morningside Venture Investments Limited and notice and communication shall only be effectively given by a nationally recognized overnight courier to Morningside Venture Investments Limited three (3) days after deposit with such courier, specifying next day delivery, with written verification of receipt.

15. Governing Law. This Warrant and all actions arising out of or in connection with this Warrant shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law provisions of the State of Delaware or of any other state.

16. Rights and Obligations Survive Exercise of Warrant. Unless otherwise provided herein, the rights and obligations of the Company and of the holder of this Warrant shall survive the exercise of this Warrant.

17. Electronic Signatures. This Warrant may be executed by a facsimile or an electronic signature.

18. Amendments. Except as otherwise expressly set forth in this Warrant, any term of this Warrant may be amended or waived (either retroactively or prospectively) only with the written consent of the Company and the holders of Warrants issued under the Purchase Agreement representing at least a majority of the aggregate number of Shares issuable upon exercise of all such Warrants (the "***Required Holders***"); provided that the terms of this Warrant may not be amended or waived without the written consent of Holder unless such amendment or waiver applies to the holders of all

Warrants issued under the Purchase Agreement in the same fashion. Any amendment effected in accordance with this Section 18 shall be binding upon Holder, each holder of each Warrant issued under the Purchase Agreement and the Company. The Holder acknowledges that, by the operation of this Section 18, the Required Holders have the right and power to diminish or eliminate all rights of the Holder under this Warrant even without the consent of the Holder.

19. No Waiver. No waiver of any provision or consent to any action shall constitute a waiver of any other provision or consent to any other action, whether or not similar. No waiver or consent shall constitute a continuing waiver or consent or commit a party to provide a waiver in the future except to the extent specifically set forth in writing.

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Warrant to be duly executed and delivered by their proper and duly authorized officers as of the date first written above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____
Name: Timothy Albury
Title: Chief Financial Officer

EXHIBIT 1

NOTICE OF EXERCISE

TO: Liquidia Technologies, Inc.
P.O. Box 110085
Research Triangle Park, NC 27709
Attention: Neal Fowler

1. The undersigned hereby elects to purchase shares of pursuant to the terms of the attached Warrant.

2. Method of Exercise (Please check the applicable blank):

   o The undersigned elects to exercise the attached Warrant by means of a cash payment, and tenders herewith payment in full for the purchase price of the shares being purchased, together with all applicable transfer taxes, if any.

   o The undersigned elects to exercise the attached Warrant by means of the net exercise provisions of Section 4 of the Warrant.

3. Please issue a certificate or certificates representing said Shares in the name of the undersigned or in such other name as is specified below:

_____
(Name)

_____

_____
(Address)

_____
(Signature)

_____
(Name)

_____ _____
(Date) (Title)

EXHIBIT 2

FORM OF TRANSFER
(To be signed only upon transfer of Warrant)

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto the right represented by the attached Warrant to purchase shares of of Liquidia Technologies, Inc., a Delaware corporation, to which the attached Warrant relates, and appoints Attorney to transfer such right on the books of , with full power of substitution in the premises.

Dated: _____

_____
(Signature must conform in all respects to name of Holder as specified on the face of the Warrant)

Address: _____

Signed in the presence of:

_____

Exhibit 4.5

EXECUTION VERSION

LIQUIDIA TECHNOLOGIES, INC.

SEVENTH AMENDED AND RESTATED
INVESTORS' RIGHTS AGREEMENT

February 2, 2018

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SEVENTH AMENDED AND RESTATED
INVESTORS' RIGHTS AGREEMENT

This **SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT** (this "**Agreement**") is made as of February 2, 2018 (the "**Effective Date**"**)**, by and among Liquidia Technology, Inc., a Delaware corporation (the "**Company**"**)**, the investors listed on Schedule A hereto (each of which is herein referred to as an "**Investor**"), and the holders of the Company's Class A Voting Common Stock, $0.001 par value per share (the "**Class A Common Stock**") and/or the Company's Class B Nonvoting Common Stock, $0.001 par value per share (the "**Class B Common Stock**" and, together with the Class A Common Stock, the "**Common Stock**") listed on Schedule B hereto (each of which is herein referred to as a "**Common Holder**"**)**.

RECITALS

WHEREAS, the Company, certain of the Investors (the "**Prior Investors**"**)** who are holders of the Company's Series A Preferred Stock, par value $0.001 per share (the "**Series A Stock**"), Series A-1 Preferred Stock, par value $0.001 per share (the "**Series A-1 Stock**"**)**, Series B Preferred Stock, par value $0.001 per share (the "**Series B Stock**"**)**, Series C Preferred Stock, par value $0.001 per share (the "**Series C Stock**"), Series C-1 Preferred Stock, par value $0.001 per share (the "**Series C-1 Stock**"), Series D Preferred Stock, par value $0.001 per share (the "**Series D Stock**"), the Common Holders and holders of unsecured subordinated convertible promissory notes (the "**Notes**") issued by the Company (collectively, the "**Noteholders**") are parties to that certain Sixth Amended and Restated Investors' Rights Agreement, dated as of July 17, 2017 (the "**Prior Agreement**"**)**;

WHEREAS, the Company and certain of the Investors (the "**New Investors**") have entered into that certain Series D Preferred Stock Purchase Agreement of even date herewith (the "**Purchase Agreement**"), which provides for, among other things, the purchase by the New Investors of shares of Series D Preferred Stock of the Company (the "**Series D Stock**") and the conversion of all principal and accrued interest due under the Notes into Series D Stock as full payment due thereunder and simultaneous termination of the Notes with no further force and effect;

WHEREAS, pursuant to Section 3.11 of the Prior Agreement, upon the conversion of each Noteholder's Note, such Noteholder shall automatically become an Investor; and

WHEREAS, to induce the New Investors to enter into the Purchase Agreement and purchase shares of Series D Stock thereunder, the Company, the Prior Investors and the Common Holders desire to amend and restate the Prior Agreement in its entirety as set forth herein.

NOW, **THEREFORE**, in consideration of the foregoing premises and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Registration Rights. The Company covenants and agrees as follows:

1.1 Definitions.

(a) The term "**Act**" means the Securities Act of 1933, as amended.

(b) The term "**Form S-3**" means such form under the Act as in effect on the date hereof or any registration form under the Act subsequently adopted by the SEC that permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.

(c) The term "**Holder**" means any person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 1.11 hereof; provided, however, that the Common Holders shall not be deemed to be Holders for purposes of Sections 1.2, 1.4, 1.12, 2.1, 2.2, 2.4 and 3.7,

(d) The term "**Initial Offering**" means the Company's first underwritten public offering of its Common Stock under the Act.

(e) The term "**1934 Act**" means the Securities Exchange Act of 1934, as amended.

(f) The term "**Preferred Stock**" means the Company's Series A Stock, Series A-1 Stock, Series B Stock, Series C Stock, Series C-1 Stock and Series D Stock.

(g) The terms "**register**," "**registered**," and "**registration**" refer to a registration effected by preparing and filing a Registration Statement in compliance with the Act, and the declaration or ordering of effectiveness of such Registration Statement.

(h) The term "**Registrable Securities**" means (i) the Class A Common Stock issuable or issued upon conversion of the Preferred Stock, (ii) the 3,146,610 shares of Common Stock issued to the Common Holders; provided, however, that such shares of Common Stock shall not be deemed Registrable Securities for the purposes of Sections 1.2, 1.4, 1.12, 2.1, 2.2, 2.4 and 3.7; (iii) any shares of Common Stock purchased or acquired by any Investor subsequent to the date hereof; (iv) shares of capital stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security that is issued as) a dividend or other distribution with respect to, or in exchange for, or in replacement of, the shares referenced in clauses (i), (ii) and (iii) above; (v) shares into which the shares described in clauses (i), (iii) or (iv) above may be converted, reclassified, redesignated, subdivided, consolidated or otherwise changed; and (vi) shares of capital stock of the Company or any successor thereto received by the holders of Registrable Securities in a merger, consolidation or other reorganization of or including the Company; excluding in all cases, however, any Registrable Securities sold by a person or entity in a transaction in which his, her, or its rights under this Section 1 are not assigned. The number of shares of "Registrable Securities" outstanding shall be determined by the number of shares of Common Stock outstanding that are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities that are, Registrable Securities.

(i) The term "**Registration Statement**" means a registration statement filed by the Company with the SEC for a public offering and sale of Registrable

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Securities or Common Stock by the Company (other than a registration statement on Form S-8 or Form S-4, or their successors, or any other form for a similar limited purpose, or any registration statement covering only securities proposed to be issued in exchange for securities or assets of another corporation).

(j) The term "**Required Holders**" means the Holders of at least a majority of the Class A Common Stock issuable or issued upon conversion of the Series C Stock, Series C-1 Stock and Series D Stock held by all Holders.

(k) The term "**Rule 144**" shall mean Rule 144 under the Act.

(l) The term "**SEC**" shall mean the Securities and Exchange Commission.

1.2 Request for Registration.

(a) Subject to the conditions of this Section 1.2, if the Company shall receive, at any time after the earlier of (i) three years after the Effective Date or (ii) six (6) months after the effective date of the Initial Offering, a written request (a "**Registration Request**") from the Required Holders that the Company file a Registration Statement covering the registration of Registrable Securities with an anticipated aggregate offering price of at least $10,000,000, then the Company shall, within twenty (20) days of the receipt of the Registration Request, give written notice of such request to all Holders (a "**Requested Registration Notice**"), and subject to the limitations of this Section 1.2, use all commercially reasonable efforts to effect, as soon as practicable, the registration under the Act of all Registrable Securities that the Holders request to be registered in a written request received by the Company within twenty (20) days of after receipt of the Requested Registration Notice.

(b) If the Required Holders intend to distribute the Registrable Securities covered by the Registration Request by means of an underwriting, they shall so advise the Company in the Registration Request and the Company shall include such information in the Requested Registration Notice. In such event the right of any Holder to include its Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Required Holders and such Holder) to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company (which underwriter or underwriters shall be reasonably acceptable to a majority in interest of the Required Holders). Notwithstanding any other provision of this Section 1.2, if the underwriter advises the Company that marketing factors require a limitation on the number of securities underwritten (including Registrable Securities), then the Company shall so advise all Holders of Registrable Securities that would otherwise be underwritten pursuant hereto, and the number of shares that may be included in the underwriting shall be allocated to the Holders of such Registrable Securities pro rata based on the number of Registrable Securities held by all such Holders (including the Required Holders). In no event shall any Registrable Securities be excluded from such underwriting unless all other securities are first excluded. Any Registrable Securities excluded or withdrawn from such underwriting shall be withdrawn from the registration.

(c) Notwithstanding the foregoing, the Company shall not be required to effect a registration pursuant to this Section 1.2:

(i) in any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, unless the Company is already subject to service in such jurisdiction and except as may be required under the Act; or

(ii) after the Company has filed two (2) Registration Statements pursuant to this Section 1.2, and such Registration Statements have been declared or ordered effective and have remained effective for the time period required by Section 1.5(a)(i) below; or

(iii) during the period starting with the date sixty (60) days prior to the Company's good faith estimate of the date of the filing of and ending on a date one hundred eighty (180) days following the effective date of a Company-initiated registration subject to Section 1.3 below, provided that the Company is actively employing in good faith all commercially reasonable efforts to cause such Registration Statement to become effective; or

(iv) if the Required Holders propose to dispose of Registrable Securities that may be registered on Form S-3 pursuant to Section 1.4 hereof; or

(v) if the Company shall furnish to Holders requesting a Registration Statement pursuant to this Section 1.2 a certificate signed by the Company's Chief Executive Officer or Chairman of the Board stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such Registration Statement to be effected at such time, in which event the Company shall have the right to defer such filing for a period of not more than ninety (90) days after receipt of the request of the Required Holders, provided that such right shall be exercised by the Company not more than once in any twelve (12)-month period and provided further that the Company shall not register any securities for the account of itself or any other stockholder during such ninety (90) day period (other than a registration relating solely to the sale of securities of participants in a Company stock plan, a registration

relating to a corporate reorganization or transaction under Rule 145 of the Act, or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered).

1.3 Company Registration.

(a) If the Company proposes to register (including for this purpose a registration effected by the Company for stockholders including the Holders pursuant to Section 1.2) any of its stock or other securities under the Act in connection with the public offering of such securities (other than a registration relating solely to the sale of securities of participants in a Company stock plan, a registration relating to a corporate reorganization or transaction under Rule 145 of the Act or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered), the Company shall, at such time, promptly give each Holder written notice of such registration (a "**Company Registration Notice**"). Upon the written request of each Holder given within

twenty (20) days after receipt of the Company Registration Notice, the Company shall, subject to the provisions of Section 1.3(c), use all commercially reasonable efforts to cause to be registered under the Act all of the Registrable Securities that each such Holder requests to be registered.

(b) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 1.3 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration. The expenses of such withdrawn registration shall be borne by the Company in accordance with Section 1.7 hereof

(c) Underwriting Requirements. In connection with any offering involving an underwriting of shares of the Company's capital stock, the Company shall not be required under this Section 1.3 to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed upon between the Company and the underwriters selected by the Company (or by other persons entitled to select the underwriters) and enter into an underwriting agreement in customary form with such underwriters, and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by the Company. If the total amount of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the amount of securities sold other than by the Company that the underwriters determine in their sole discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, that the underwriters determine in their sole discretion will not jeopardize the success of the offering. In no event shall any Registrable Securities be excluded from such offering unless all other stockholders' securities have been first excluded. Notwithstanding any other provision of this Agreement, if the underwriter determines in good faith that marketing factors require a limitation of the number of shares to be underwritten, the number of shares that may be included in the underwriting shall be allocated, first, to the Company; second, to the Holders other than the Common Holders on a *pro rata* basis based on the total number of Registrable Securities held by the Holders other than the Common Holders; third, to the Common Holders on a *pro rata* basis based on the total number of Registrable Securities held by the Common Holders and fourth, to any stockholder of the Company other than a Holder and/or Common Holder on a *pro rata* basis. Notwithstanding the foregoing, in no event shall (i) the amount of securities of the selling Holders included in the offering be reduced below twenty-five percent (25%) of the total amount of securities included in such offering, unless such offering is the initial public offering of the Company's securities, in which case the selling Holders may be excluded if the underwriters make the determination described above and no other stockholder's securities are included in such offering or (ii) any securities held by a party other than a Holder, including for this purpose any securities held by a Common Holder, be included in such offering if any Registrable Securities held by a Holder requesting registration are excluded from such offering. For purposes of the preceding sentence concerning apportionment, for any selling stockholder that is a Holder of Registrable Securities and that is a venture capital fund, partnership or corporation, the affiliated venture capital funds, partners, retired partners and stockholders of such Holder, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate amount of Registrable Securities owned by all such related entities and individuals.

1.4 Form S-3 Registration. In case the Company shall receive from the Holders of Registrable Securities (for purposes of this Section 1.4, the "**Required Holders**") a written request or requests that the Company effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders (an "**S-3 Registration Request**"), the Company shall:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders (an "**S-3 Registration Notice**"); and

(b) use all commercially reasonable efforts to effect, as soon as practicable, such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holders joining in such request as are specified in a written request given within twenty (20) days after receipt of the S-3 Registration Notice; provided, however, that the Company shall not be obligated to effect any such registration, qualification or compliance, pursuant to this Section 1.4:

(i) if Form S-3 is not available for such offering by the Holders;

(ii) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of any underwriters' discounts or commissions) of less than $5,000,000;

(iii) if the Company shall furnish to Holders requesting a Registration Statement pursuant to this Section 1.4 a certificate signed by the Company's Chief Executive Officer or Chairman of the Board stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such Registration Statement to be effected at such time, in which event the Company shall have the right to defer such filing for a period of not more than ninety (90) days after receipt of the S-3 Registration Request, provided that such right shall be exercised by the Company not more than once in any twelve (12)-month period and provided further that the Company shall not register any securities for the account of itself or any other stockholder during such ninety (90) day period (other than a registration relating solely to the sale of securities of participants in a Company stock plan, a registration relating to a corporate reorganization or transaction under Rule 145 of the Act or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered);

(iv) if the Company has, within the twelve (12) month period preceding the date of such request, already filed two (2) Registration Statements on Form S-3 for the Holders pursuant to this Section 1.4, and such Registration Statements have been declared or ordered effective and have remained effective for the time period required by Section 1.5(a)(i) below; or

(v) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance unless the Company is already subject to service in such jurisdiction and except as may be required under the Act.

(c) If the Required Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 1.4 and the Company shall include such information in the written notice referred to in Section 1.4(a). The provisions of Section 1.2(b) shall be applicable to such request (with the substitution of Section 1.4 for references to Section 1.2).

(d) Subject to the foregoing, the Company shall file a Registration Statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the Required Holders. Registrations effected pursuant to this Section 1.4 shall not be counted as requests for registration effected pursuant to Sections 1.2.

1.5 Obligations of the Company.

(a) Whenever required under this Section 1 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(i) prepare and file with the SEC a Registration Statement with respect to such Registrable Securities, use all commercially reasonable efforts to cause such Registration Statement to become effective, and keep such Registration Statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the Registration Statement has been completed;

(ii) prepare and file with the SEC such amendments and supplements to such Registration Statement and the prospectus used in connection with such Registration Statement as may be necessary to comply with the provisions of the Act with respect to the disposition of all securities covered by such Registration Statement;

(iii) furnish to the Holders such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them;

(iv) use all commercially reasonable efforts to register and qualify the securities covered by such Registration Statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions;

(v) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering;

(vi) notify each Holder of Registrable Securities covered by such Registration Statement at any time when a prospectus relating thereto is required to be delivered under the Act of the happening of any event as a result of which the prospectus included in such Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(vii) furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters (a) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and to each selling holder of Registrable Securities covered by such Registration Statement and (b) a letter dated as of such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering addressed to the underwriters and to each selling holder of Registrable Securities covered by such Registration Statement;

(viii) cause all such Registrable Securities registered pursuant to this Section 1 to be listed on a national exchange or trading system and on each securities exchange and trading system on which similar securities issued by the Company are then listed; and

(ix) provide a transfer agent and registrar for all Registrable Securities registered pursuant hereunder and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

(b) In the event of any delay in filing or the suspension of effectiveness or use of any registration statement pursuant to this Section 1.5, the applicable time period during which such Registration Statement is to remain effective or updated shall be extended by that number of days equal to the number of days the filing, effectiveness, or use of such Registration Statement was suspended.

1.6 Information from Holder. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 1 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be reasonably required to effect the registration of such Holder's Registrable Securities.

1.7 Expenses of Registration. All expenses other than underwriting discounts and commissions incurred in connection with registrations, filings or qualifications pursuant to Sections 1.2, 1.3 and 1.4, including (without limitation) all registration, filing and qualification fees, printers' and accounting fees, fees and disbursements of counsel for the Company and the reasonable fees and disbursements of one counsel for the selling Holders (not to exceed $50,000) shall be borne by the Company. Notwithstanding the foregoing, the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 1.2 or Section 1.4 if the registration request is subsequently withdrawn at the request of the Holders of

a majority of the Registrable Securities to be registered (in which case all participating Holders shall bear such expenses pro rata in proportion to the number of Registrable Securities that were to be included in the withdrawn registration), unless, in the case of a registration requested under Section 1.2, the Holders of a majority of the Registrable Securities agree to forfeit their right to one demand registration pursuant to Section 1.2; provided, however, that if at the time of such withdrawal, the Holders have learned of a material adverse change in the condition, business or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness following disclosure by the Company of such material adverse change, then the Holders shall not be required to pay any of such expenses and shall retain their rights pursuant to Section 1.2.

1.8 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 1.

1.9 Indemnification. In the event any Registrable Securities are included in a Registration Statement:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, officers, directors and stockholders of each Holder, legal counsel and accountants for each Holder, any underwriter (as defined in the Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Act or the 1934 Act, against any losses, claims, damages or liabilities (joint or several) to which they may become subject under the Act, the 1934 Act, any state securities laws or any rule or regulation promulgated under the Act, the 1934 Act, or such state securities laws, common law or otherwise, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "**Violation**"): (i) any untrue statement or alleged untrue statement of a material fact contained in such Registration Statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state in such Registration Statement a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Act, the 1934 Act, any state securities laws or any rule or regulation promulgated under the Act, the 1934 Act or any state securities laws or otherwise in connection with the offering related to such Registration Statement; and the Company will reimburse each such Holder, underwriter, controlling person or other aforementioned person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action as such expenses are incurred; provided, however, that the indemnity agreement contained in this subsection 1.9(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation that occurs in reliance upon and in conformity with written information furnished to the Company in writing expressly for use in connection with such registration by the Holder, underwriter, controlling person or other aforementioned person seeking indemnification under this subsection 1.9(a); and provided further, that the foregoing indemnity agreement with respect

to any preliminary prospectus shall not inure to the benefit of any Holder or underwriter or other aforementioned person, or any person controlling such Holder or underwriter, from whom the person asserting any such losses, claims, damages or liabilities purchased shares in the offering, if a copy of the most current prospectus was not sent or given by or on behalf of such Holder or underwriter or other aforementioned person to such person, if required by law to have been so delivered, at or prior to the written confirmation of the sale of the shares to such person, and if the prospectus (as so amended or supplemented) would have cured the defect giving rise to such loss, claim, damage or liability.

(b) To the extent permitted by law, each selling Holder (severally, and not jointly) will indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the Registration Statement, each person, if any, who controls the Company within the meaning of the Act, legal counsel and accountants for the Company, any underwriter, any other Holder selling securities in such Registration Statement and any controlling person of any such underwriter or other Holder, against any losses, claims, damages or liabilities (joint or several) to which any of the foregoing persons may become subject, under the Act, the 1934 Act, any state securities laws or any rule or regulation promulgated under the Act, the 1934 Act or any state securities laws, common law or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any Violation or otherwise in connection with the offering related to such Registration Statement, in each case to the extent (and only to the extent) that the foregoing occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will reimburse any person intended to be indemnified pursuant to this subsection 1.9(b) for any legal or other expenses reasonably incurred by such person in connection with investigating or defending any such loss, claim, damage, liability or action as such expenses are incurred; provided, however, that the indemnity agreement contained in this subsection 1.9(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder (which consent shall not be unreasonably withheld); and provided further, that in no event shall any indemnity under this subsection 1.9(b) exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by a party entitled to indemnification under this Section 1.9 (an "**Indemnified Party**") of notice of the commencement of any action (including any governmental action), such Indemnified Party will, if a claim in respect thereof is to be made against any party required to provide indemnification under this Section 1.9 (an "**Indemnifying Party**"), deliver to the Indemnifying Party a written notice of the commencement thereof. The Indemnifying Party shall have the right to participate in and, to the extent the Indemnifying Party so desires, jointly

with any other Indemnifying Party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an Indemnified Party (together with all other Indemnified Parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the Indemnifying Party, if representation of such Indemnified Party by the counsel retained by the Indemnifying Party would be inappropriate due to actual or potential differing interests between such Indemnified Party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the Indemnifying Party within a reasonable time of the commencement of any such

action, if prejudicial to its ability to defend such action, shall relieve such Indemnifying Party of liability to the Indemnified Party under this Section 1.9 to the extent of such prejudice, but the omission to so deliver written notice to the Indemnifying Party will not relieve it of any liability that it may have to any Indemnified Party otherwise than under this Section 1.9. No Indemnifying Party in the defense of any claim or action shall consent to entry of any judgment without the prior written consent of the Indemnified Party (which consent shall not be unreasonably withheld) and no Indemnified Party shall consent to entry of any such judgment without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld). Each Indemnified Party shall furnish such information regarding itself or the claim in question as an Indemnifying Party may reasonably request in writing and as shall be reasonably required in connection with the defense of such claim and action resulting therefrom.

(d) If the indemnification provided for in this Section 1.9 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any loss, liability, claim, damage or expense referred to herein, then the Indemnifying Party, in lieu of indemnifying such Indemnified Party hereunder, shall contribute to the amount paid or payable by such Indemnified Party as a result of such loss, liability, claim, damage or expense in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and the Indemnified Party on the other hand in connection with the statements or omissions that resulted in such loss, liability, claim, damage or expense, as well as any other relevant equitable considerations; provided, however, that no contribution by any Holder, when combined with any amounts paid by such Holder pursuant to Section 1.9(b), shall exceed the net proceeds from the offering received by such Holder. The relative fault of the Indemnifying Party and the Indemnified Party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Indemnifying Party or by the Indemnified Party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

(e) The obligations of the Company and Holders under this Section 1.9 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 1 and otherwise.

1.10 Reports Under the 1934 Act. With a view to making available to the Holders the benefits of Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144, at all times after the effective date of the Initial Offering;

(b) file with the SEC in a timely manner all reports and other documents required of the Company under the Act and the 1934 Act; and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144 (at any time after ninety (90) days after the effective

date of the first registration statement filed by the Company), the Act and the 1934 Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested to avail any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration or pursuant to such form.

1.11 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 1 may be assigned (but only with all related obligations) by a Holder to a transferee or assignee of such securities that (i) is a subsidiary, affiliate, parent, partner, stockholder, limited partner, member, retired partner or retired member of a Holder, (ii) is a Holder's family member or trust for the benefit of an individual Holder, or (iii) after such assignment or transfer, holds at least two percent (2%) of all then outstanding Registrable Securities, provided: (a) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned; (b) such transferee or assignee agrees in writing to be bound by and subject to the terms and conditions of this Agreement, including, without limitation, the provisions of Section 1.13 below; and (c) such assignment shall be effective only if immediately following such transfer the further disposition of such securities by the transferee or assignee is restricted under the Act.

1.12 Limitations on Subsequent Registration Rights. From and after the Effective Date, the Company shall not, without the prior written consent of the Required Holders, enter into any agreement with any holder or prospective holder of any securities of the Company that would allow such holder or prospective holder (a) to include any of such securities in any registration filed under Section 1.2, Section 1.3 or Section 1.4 hereof, unless under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the amount of the Registrable Securities of the Holders that are included or (b) to demand registration of their securities.

1.13 "Market Stand-Off" Agreement. Solely in connection with the Initial Offering, the Holders, if requested by the Company and the managing underwriter of such Initial Offering pursuant to a Registration Statement, shall agree not to sell publicly or otherwise transfer or dispose of any Registrable Securities or other securities of the Company held by such Holders for a specified period of time (not to exceed the lesser of the then-customary lock up period or 180 days following the effective date of the Registration Statement related to the Initial Offering) as long as all executive officers and directors of the Company and holders of the Company's securities representing more than 1% of the Company's outstanding shares of Common Stock (calculated on a fully-diluted basis) enter into similar agreements; provided that all restrictions set forth in this Section 1.13 on all such Holders shall terminate and be of no further force or effect if any other Holder or any officer, director or other such holder is released from, or otherwise no longer bound by, such agreement or restrictions. The Company shall place a legend on each certificate representing Registrable Securities that such Registrable Securities are subject to the "market stand-off" restrictions set forth in this Agreement.

1.14 Termination of Registration Rights. No Holder shall be entitled to exercise any right provided for in this Section 1 (i) after five (5) years following the consummation of the Qualified Public Offering (as defined in the Company's Restated Certificate (as defined below)), (ii) as to any Holder, such earlier time after the Initial Offering at which such Holder can sell all Registrable Securities held by such Holder (together with any affiliate of the Holder with whom such Holder must aggregate its sales under Rule 144) in a single three (3)-month period without registration in compliance with Rule 144 or (iii) after the consummation of a Liquidation Event (as such teen is defined in the Restated Certificate, a "**Liquidation Event**").

2. Covenants of the Company.

2.1 Delivery of Financial Statements. The Company shall, upon request, deliver to each Investor (or transferee of an Investor) that holds at least 300,000 shares (subject to appropriate adjustment for stock splits, stock dividends, combinations or the like) of the Preferred Stock (a "**Major Investor**"):

(a) as soon as practicable, but in any event within one hundred fifty (150) days after the end of each fiscal year of the Company, consolidated and consolidating income statements for the Company and its subsidiaries for such fiscal year, consolidated and consolidating balance sheets of the Company and its subsidiaries, consolidated and consolidating statements of stockholders' equity for the Company and its subsidiaries as of the end of such year, and consolidated and consolidating statements of cash flows for the Company and its subsidiaries for such year, such year-end financial reports to be in reasonable detail, prepared in accordance with generally accepted accounting principles **(**"**GAAP**"), and audited and certified by independent public accountants of nationally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within forty-five (45) days after the end of each quarter of each fiscal year of the Company, consolidated and consolidating unaudited income statements for the Company and its subsidiaries, consolidated and consolidating statements of cash flows for the Company and its subsidiaries for such fiscal quarter and consolidated and consolidating unaudited balance sheets for the Company and its subsidiaries as of the end of such fiscal quarter;

(c) within thirty (30) days of the end of each month, consolidated and consolidating unaudited income statements and statements of cash flows for the Company and its subsidiaries and consolidated and consolidating balance sheets for the Company and its subsidiaries for and as of the end of such month, in reasonable detail and compared against the then current budget for the Company and its subsidiaries;

(d) as soon as practicable, but in any event at least thirty (30) days prior to the end of each fiscal year, a budget and business plan for the next fiscal year for the Company and its subsidiaries, prepared on a monthly basis, including consolidated and consolidating balance sheets, income statements and statements of cash flows for such months and, as soon as prepared, any other budgets or revised budgets prepared by the Company; and

(e) as soon as practicable, but in any event at least sixty (60) days after the end of each fiscal year, a report and analysis from the Company's Chief Executive Officer on

any variance between the actual performance by the Company and its subsidiaries for such fiscal year and the budget for the Company and its subsidiaries for such fiscal year.

2.2 Inspection. The Company shall permit each Major Investor, at such Major Investor's expense, to visit and inspect the Company's properties, to examine its books of account and records and to discuss the Company's affairs, finances and accounts with its officers, all at such reasonable times as may be requested by the Major Investor; provided, however, that the Company shall not be obligated pursuant to this Section 2.2 to provide access to any information that it reasonably considers to be a trade secret or similar confidential information. The provisions of this Section 2.2 shall not amend or alter any obligation of any Major Investor or the Company to exchange information, including trade secrets and confidential information, under any other agreement between a Major Investor and the Company.

2.3 Termination of Information and Inspection Covenants. The covenants set forth in Sections 2.1 and 2.2 shall terminate and be of no further force or effect upon the earliest to occur of (i) the consummation of a Qualified Public Offering, as that term is defined in the Company's Amended and Restated Certificate of Incorporation (as amended from time to time, the "**Restated Certificate**"), (ii) when the Company first becomes subject to the periodic reporting requirements of Sections 12(g) or 15(d) of the 1934 Act, whichever event shall first occur or (iii) the consummation of a Liquidation Event other than an Asset Sale (as such term is defined in the Restated Certificate).

2.4 Right of First Refusal. Subject to the terms and conditions specified in this Section 2.4, the Company hereby grants to each Major Investor a right of first refusal with respect to each issuance by the Company of its Shares (as hereinafter defined). For purposes of this Section 2.4, the term "**Major Investor**" includes any general partners and affiliates of a Major Investor. A Major Investor shall be entitled to apportion the right of first refusal hereby granted it among itself and its partners and affiliates in such proportions as it deems appropriate.

Each time the Company proposes to offer or issue any shares of, or securities convertible into or exchangeable or exercisable for any shares of, its capital stock or any shares of phantom stock or stock appreciation rights (**"Shares**"), the Company shall first make an offering of such Shares to each Major Investor in accordance with the following provisions:

(a) The Company shall deliver a notice in accordance with Section 3.5 **("First Refusal Notice**") to the Major Investors stating (i) its bona fide intention to offer such Shares, (ii) the number of such Shares to be offered and (iii) the price and terms upon which it proposes to offer such Shares. If the consideration to be paid by others for such Shares is not cash, the fair market value of the consideration shall be determined in good faith by the Company's Board of Directors and a reasonably detailed explanation of such determination of such value shall be included in the First Refusal Notice. All Major Investors electing to participate in the purchase of such Shares shall be entitled to pay the cash equivalent thereof as so determined.

(b) By written notification received by the Company within twenty (20) calendar days after the giving of a First Refusal Notice, each Major Investor may elect to purchase, at the price and on the terms specified in the First Refusal Notice, up to that portion of

such Shares that equals the proportion that the number of shares of Common Stock (as to each Major Investor, its "**Pro Rata Portion**") held by such Major Investor (assuming full conversion or exercise of all convertible or exercisable securities then held by such Major Investor and the satisfaction of all conditions precedent to convertibility or exercisability) bears to the total number of shares of Common Stock of the Company then outstanding (assuming full conversion and exercise of all convertible and exercisable securities then outstanding and the satisfaction of all conditions precedent to convertibility or exercisability). The Company shall promptly, in writing, inform each Major Investor that elects to purchase its full Pro Rata Portion of all the Shares available to it (a "**Fully-Exercising Investor**") of any other Major Investor's failure to do likewise. During the ten (10) day period commencing after such information is given, each Fully-Exercising Investor may elect to purchase that portion of the Shares for which Major Investors were entitled to subscribe, but which were not subscribed for by the Major Investors, which is equal to the proportion that the number of shares of Common Stock held by such Fully-Exercising Investor (assuming full conversion or exercise of all convertible or exercisable securities then held by such Fully-Exercising Investor and the satisfaction of all conditions precedent to convertibility or exercisability) bears to the total number of shares of Common Stock held by all Fully-Exercising Investors who wish to purchase such unsubscribed shares (assuming full conversion or exercise of all convertible or exercisable securities then held by all such Full-Exercising Investors and the satisfaction of all conditions precedent to convertibility or exercisability).

(c) If all Shares that Major Investors are entitled to obtain pursuant to subsection 2.4(b) are not elected to be obtained as provided in subsection 2.4(b) hereof, the Company may, during the ninety (90) day period following the expiration of the final period provided in subsection 2.4(b) hereof, offer the remaining unsubscribed portion of such Shares to any person or persons at a price not less than that, and upon terms no more favorable to the offeree than those, specified in the First Refusal Notice. If the Company does not enter into an agreement for the sale of the Shares within such period, or if such agreement is not consummated within sixty (60) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such Shares shall not be offered unless first reoffered to the Major Investors in accordance herewith.

(d) The right of first refusal in this Section 2.4 shall not be applicable to (i) the issuance or sale of shares of Common Stock (or options exercisable for shares of Common Stock) to employees, directors, consultants and other service providers under the Company's 2004 Stock Option Plan, as amended, or the Company's 2016 Equity Incentive Plan, as amended, for the primary purpose of soliciting or retaining their services pursuant to plans or agreements approved by the Company's Board of Directors; (ii) the issuance of securities pursuant to a Qualified Public Offering, as that term is defined in the Restated Certificate; (iii) the issuance of securities pursuant to the conversion or exercise of convertible or exercisable securities outstanding on the Effective Date or previously issued in a transaction to which the terms of this Section 2.4 were complied with; (iv) securities issued in connection with a bona fide business acquisition of another business entity by the Company other than for financing purposes, whether by merger, consolidation, sale of assets, sale or exchange of stock or otherwise, provided that such transaction is approved by the Company's Board of Directors; (v) the issuance of securities issued or issuable pursuant to the exercise of warrants, options or other rights granted in connection with any loan arrangement, equipment lease, technology

license, vendor or customer relationship or similar non-equity financing transaction approved by the Board of Directors, provided, that the aggregate number of shares of capital stock of the Company issued or issuable pursuant to this clause (v) may not exceed 400,000 shares of Common Stock (subject to appropriate adjustment for stock splits, stock dividends, combinations or the like) (on a Common Stock equivalent basis); (vi) the issuance of any securities which, with the unanimous approval of the Board, are not offered to any existing shareholders or their affiliates, (vii) the issuance of any securities in connection with a stock split or dividend by the Company or (viii) the issuance of up to 137,423,317 shares of Series D Stock under the Purchase Agreement. In addition to the foregoing, the right of first refusal in this Section 2.4 shall not be applicable with respect to any Major Investor in any subsequent offering of Shares if (i) at the time of such offering, the Major Investor is not an "accredited investor," as that term is then defined in Rule 501(a) of the Act and (ii) such offering of Shares is otherwise being offered only to accredited investors.

(e) The rights provided in this Section 2.4 may not be assigned or transferred by any Major Investor; provided, however, that a Major Investor that is a venture capital fund may assign or transfer such rights to an affiliated venture capital fund.

(f) The covenants set forth in this Section 2.4 shall terminate and be of no further force or effect upon the consummation of (i) a Qualified Public Offering, as that term is defined in the Restated Certificate, or (ii) a Liquidation Event other than an Asset Sale (as such term is defined in the Restated Certificate).

2.5 Observer Rights.

(a) As long as the Bill and Melinda Gates Foundation ("**Foundation**") owns not less than 412,000 shares of Series C-1 Stock (or an equivalent amount of Class A Common Stock issued or issuable upon conversion thereof and, in any event, subject to appropriate adjustment for stock splits, stock dividends, combinations or the like), the Company and its majority-owned subsidiaries shall invite a representative of Foundation to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall provide copies of all minutes and consents of such Board of Directors to such representative; provided, however, that such representative shall agree to hold such information in confidence and trust; and, provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets or a conflict of interest.

(b) As long as Canaan VIII L.P. ("**Canaan**") owns not less than 250,000 shares of Series C Stock (or an equivalent amount of Class A Common Stock issued or issuable upon conversion thereof and, in any event, subject to appropriate adjustment for stock splits, stock dividends, combinations or the like), the Company and its majority-owned subsidiaries shall invite a representative of Canaan to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall provide copies of all minutes and consents of such Board of Directors to such representative; provided, however, that such representative shall agree to hold such information in confidence and trust; and, provided

further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets.

(c) As long as New Enterprise Associates 12, Limited Partnership, together with its affiliates, ("**NEA**") owns not less than 250,000 shares of Series B Stock (or an equivalent amount of Class A Common Stock issued or issuable upon conversion thereof and, in any event, subject to appropriate adjustment for stock splits, stock dividends, combinations or the like), the Company shall provide copies of all minutes and consents of the Company's Board of Directors to NEA; provided, however, that such representative shall agree to hold such information in confidence and trust; and, provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets.

(d) As long as A.M. Pappas Life Science Ventures IV, L.P. ("**Pappas**") owns not less than 250,000 shares of Series C Stock (or an equivalent amount of Class A Common Stock issued or issuable upon conversion thereof and, in any event, subject to appropriate adjustment for stock splits, stock dividends, combinations or the like), the Company and its majority-owned subsidiaries shall invite a representative of Pappas to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall provide copies of all minutes and consents of such Board of Directors to such representative; provided, however, that such representative shall agree to hold such information in confidence and trust; and, provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets.

(e) As long as (I) Glaxo Group Limited ("**GSK**") owns shares of Series C-1 Stock or Series D Stock (or shares of Class A Common Stock issued upon conversion thereof) that constitute at least 2.0% of the total number of shares of Class A Common Stock of the Company on a fully diluted and as-converted basis, and (II) GSK continues to have the right to exercise at least one of the Options (defined below) or has exercised an Option, (A) the Company and its majority-owned subsidiaries shall provide copies of financial reports and other management presentations to the Company's Board of Directors (or to the Board of Directors of its majority-owned subsidiaries) and (B) the Company shall make available the Company's chief executive officer and chief financial officer at mutually acceptable times/locations (including by telephonic means) with representative(s) of GSK at least once per calendar quarter upon reasonable prior notice from GSK; provided, however, that GSK shall agree to hold such information in confidence and trust; and, provided further, that the Company reserves the right to withhold any information if access to such information could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets or a conflict of interest. The "Options" mean any of the Liquidia Respiratory Option or the Inhaled Option, as such terms are defined in the Inhaled Collaboration Agreement between GSK and the Company entered into on or about June 15, 2012 or the Vaccine Option, the Conjugation-by-Proxy Option,

the Right of First Refusal for Liquidia Live Replication Virus Vaccine, the Liquidia Pneumo Vaccine Option or the Liquidia Malaria Vaccine Option as such terms are defined in the Vaccines Collaboration Agreement between GSK and the Company entered into on or about June 15, 2012. The rights in this Section 2.5(e) are personal to GSK and shall in no event be assignable to any person or entity without the express consent of the Company as may be determined in its sole discretion.

(f) As long Xeraya LT Ltd, a Cayman Islands company ("**Xeraya**"), owns any shares of Series D Stock (or any shares of Class A Common Stock issued upon conversion thereof), the Company and its majority-owned subsidiaries shall invite a representative of Xeraya to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall provide copies of all minutes and consents of such Board of Directors to such representative; provided, however, that such representative shall agree to hold such information in confidence and trust; and, provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets.

2.6 Proprietary Information and Inventions Agreements. The Company shall require all employees and consultants of the Company and its majority-owned subsidiaries with access to confidential information to execute and deliver a Proprietary Information and Inventions Agreement in substantially the form included in Section 2.13 of the Disclosure Schedules to the Purchase Agreement.

2.7 Employee Agreements. Unless approved by the Board of Directors of the Company, all future employees of the Company and its majority-owned subsidiaries who shall purchase, or receive options to purchase, shares of the Company's Common Stock following the date hereof shall be required to execute stock purchase or option agreements providing for (i) vesting of shares over a four-year period with the first 25% of such shares vesting following twelve (12) months of continued employment or services, and the remaining shares vesting in equal monthly installments over the following 36 months thereafter and (ii) a 180-day lockup period in connection with the Company's initial public offering. The Company shall retain a right of first refusal on transfers of such shares and options until the Company's initial public offering and the right to repurchase unvested shares at cost.

2.8 Board Expenses. The Company shall reimburse the nonemployee directors for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors (including committees thereof) of the Company and each majority-owned subsidiary or in connection with other activities engaged in by such directors at the request of the Company or such subsidiary.

2.9 Scientific Advisory Board. As long as Canaan owns not less than 250,000 shares of Series C Stock (or an equivalent amount of Class A Common Stock issued or issuable upon conversion thereof and, in any event, subject to appropriate adjustment for stock splits, stock dividends, combinations or the like), the Company and each of its majority-owned subsidiaries shall invite a representative of Canaan to participate as a member of its Scientific

Advisory Board and shall reimburse such representative for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of such Scientific Advisory Boards or in connection with other activities engaged in by such representative at the request of the Company or such subsidiary.

2.10 Spin-Offs. The Company may develop a plan for assigning, licensing and/or sublicensing rights and assets to one or more separate wholly-owned subsidiaries formed for such purpose (each, a "**SpinCo**"). If the Company transfers or otherwise distributes the equity interests of any SpinCo to the stockholders of the Company (through a dividend, distribution or otherwise), as a condition precedent to each such transaction, (i) such transfer or distribution shall have been approved by the Company's Board of Directors and the requisite holders of Preferred Stock under the Restated Certificate, (ii) the equity interests shall be transferred or distributed to the holders of Common Stock and Preferred Stock based on the number of shares of Common Stock then held by each such holder (with the holders of Preferred Stock being treated as the holder of the number of shares of Common Stock into which such Preferred Stock is then convertible), and (iii) the Company shall have used its commercially reasonable efforts to minimize the tax impact of such transfer or distribution to its stockholders to the greatest extent possible.

2.11 Insurance. Each of the Company and its majority-owned subsidiaries shall maintain general liability and directors' and officers' liability insurance policies in each such case on terms and conditions that are acceptable to the board of directors of the Company and such subsidiary.

2.12 Reservation of Common Stock. The Company shall at all times reserve and keep available, solely for issuance and delivery upon the conversion of the Preferred Stock, all Class A Common Stock issuable from time to time upon such conversion.

2.13 Directors' Liability and Indemnification. The Company's and each of its majority-owned subsidiaries' certificate of incorporation, bylaws, articles of association and other organizational documents shall provide (a) for elimination of the liability of directors to the maximum extent permitted by law and (b) for indemnification of directors for acts on behalf of the Company and its majority-owned subsidiaries to the maximum extent permitted by law.

2.14 Qualified Small Business Stock. The Company will use commercially reasonable efforts to cause the Preferred Stock to qualify as "Qualified Small Business Stock" under Section 1202 of the Internal Revenue Code of 1986, as amended. The Company will use commercially reasonable efforts to comply with the reporting and record keeping requirements of Section 1202 of the Internal Revenue Code of 1986, as amended, any regulations promulgated thereunder and any similar state laws and regulations and to not repurchase any stock of the Company if such repurchase would cause such shares not to so qualify as "Qualified Small Business Stock."

2.15 Board of Director Approval. The Company shall not, and shall not permit any majority-owned subsidiary to, without the approval of a majority of the Company's Board of Directors: (a) incur indebtedness, except in the ordinary course of business, or prepay any outstanding indebtedness, (b) make any loan or advance to an employee, except in the ordinary course of business as part of travel advances or similar expense advances, (c) guarantee any

indebtedness or obligation of any other party, except in the ordinary course of business, (d) make any material change in the nature of its business as presently conducted or presently contemplated to be conducted, (e) approve or pay any (i) discretionary or performance bonus or award to any executive officer of the Company or any majority-owned subsidiary thereof or (ii) severance or other similar payment upon termination of any relationship with the Company to any executive officer of the Company or any majority-owned subsidiary thereof, (f) hire any executive level employee, (g) lease or purchase real estate property, (h) approve any stock option or incentive stock grant or purchase or (i) enter into any obligation or commitment in excess of $250,000.

2.16 Subsidiaries. The Company will not, without the approval of the Company's Board of Directors: (a) organize or acquire any entity that is a subsidiary unless such subsidiary is wholly-owned by the Company, (b) permit any majority-owned subsidiary to consolidate or merge into or with any entity or sell or transfer all or substantially all its assets, except that the Company may permit a subsidiary to consolidate or merge into or with or sell or transfer assets to any other subsidiary or (c) sell or otherwise transfer any shares of capital stock of any subsidiary or other equity securities of any entity, except to the Company or another subsidiary, or permit any majority-owned subsidiary to issue, sell or otherwise transfer any shares of its capital stock or the capital stock of any subsidiary or other equity securities of any entity or to sell all or substantially all of such subsidiary's assets, except to the Company or another subsidiary.

2.17 Convertible Securities. Unless approved by a majority of the Company's Board of Directors, the Company shall not issue or sell any securities convertible into, or exchangeable or exercisable for, any shares of its capital stock other than shares of Preferred Stock, unless the terms of such securities provide that such securities terminate in their entirety at the time of a Liquidation Event if they are not converted into, or exchanged or exercised for, shares of the Company's capital stock immediately prior to such Liquidation Event

2.18 Indemnification Matters. The Company hereby acknowledges that one or more of its directors may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more of the Investors and certain of their affiliates (collectively, the "**Fund Indemnitors**"). The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to any such director are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by such director are secondary), (ii) that it shall be required to advance the full amount of expenses incurred by any such director and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of any such director to the extent legally permitted and as required by the Certificate of Incorporation or Bylaws of the Company (or any agreement between the Company and such director), without regard to any rights such director may have against the Fund Indemnitors, and, (iii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of any such director with respect to any claim for which such director has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of

contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of such director against the Company.

2.19 Termination of Certain Covenants. The covenants set forth in Sections 2.4 through 2.17 shall terminate and be of no further force or effect upon the consummation of (i) a Qualified Public Offering, as that term is defined in the Restated Certificate, or (ii) a Liquidation Event other than an Asset Sale, as such term is defined in the Restated Certificate.

3. Miscellaneous.

3.1 Successors and Assigns. Except as otherwise provided herein, the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties (including transferees of any shares of Registrable Securities). Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

3.2 Governing Law. This Agreement shall be governed by and construed under the laws of the State of Delaware as applied to agreements among Delaware residents entered into and to be performed entirely within Delaware.

3.3 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

3.4 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

3.5 Notices. All notices and other communications given or made pursuant hereto shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt; provided that, notwithstanding the foregoing, no notice or communication may be effectively given under this Agreement by registered or certified mail to Morningside Venture Investments Limited and notice and communication shall only be effectively given by a nationally recognized overnight courier to Morningside Venture Investments Limited three (3) days after deposit with such courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the respective parties at the addresses set forth on the signature pages attached hereto (or at such other addresses as shall be specified by notice effectively given in accordance with this Section 3.5).

3.6 Expenses. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable

attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

3.7 Entire Agreement; Termination of Prior Agreement; Amendments and Waivers. This Agreement (including the Exhibits hereto, if any) constitutes the full and entire understanding and agreement among the parties with regard to the subjects hereof and thereof. Upon the execution and effectiveness of this Agreement, the Prior Agreement shall be terminated and of no further force or effect. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of the Company and the Required Holders; provided, however, that in the event that such amendment or waiver adversely affects the obligations or rights of a Holder in a different manner than the other Holders, such amendment or waiver shall also require the written consent of the holders of a majority in interest of the adversely affected Holders. Notwithstanding the foregoing, (a) the provisions of Section 2.5(a) and this subsection (a) of this sentence of Section 3.7 may be amended and the observance of any term thereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of Foundation; (b) the provisions of Section 2.5(b) and this subsection (b) of this sentence of Section 3.7 may be amended and the observance of any term thereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of Canaan; (c) the provisions of Section 2.5(c) and this subsection (c) of this sentence of Section 3.7 may be amended and the observance of any term thereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of NEA; (d) the provisions of Section 2.5(d) and this subsection (d) of this sentence of Section 3.7 may be amended and the observance of any term thereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of Pappas; and (e) the provisions of Section 2.5(f) and this subsection (e) of this sentence of Section 3.7 may be amended and the observance of any term thereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of Xeraya. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each Investor, each Common Holder, each holder of Registrable Securities, each future holder of Registrable Securities and the Company.

3.8 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision(s) shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision(s) were so excluded and shall be enforceable in accordance with its teens.

3.9 Aggregation of Stock. All shares of Registrable Securities held or acquired by affiliated entities (including affiliated venture capital funds) or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

3.10 Amendment of Prior Agreement. The Prior Agreement is hereby amended and superseded in its entirety and restated herein. Such amendment and restatement is effective upon the execution of this Agreement by the Company and the parties required for an amendment pursuant to Section 3.7 of the Prior Agreement. Upon such execution, all provisions

of, rights granted and covenants made in the Prior Agreement are hereby waived, released and superseded in their entirety by the provisions hereof and shall have no further force or effect. Each of the Company, the Common Holders and the Investors hereby expressly consents and agrees to this amendment and restatement of the Prior Agreement.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Neal Fowler
Name: Neal Fowler
Title: Chief Executive Officer

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

ALEXANDRIA VENTURE INVESTMENTS, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, INC., a Maryland corporation, managing member

By: /s/ Aaron Jacobson
Name: Aaron Jacobson
Title: VP – Corporate Counsel

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

ALWP CAPITAL SPC LTD - ALWP DIVERSIFIED SEGREGATED PORTFOLIO FUND

By: /s/ Leonardo Drago
Name: Leonardo Drago
Title: Chief Investment Officer

ALWP CAPITAL SPC LTD - ALWP CAPITAL GROWTH SEGREGATED PORTFOLIO FUND

By: /s/ Leonardo Drago
Name: Leonardo Drago
Title: Chief Investment Officer

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

AMEREUS GROUP PTE LTD

By: /s/ Zhang Xueqi
Name: Zhang Xueqi
Title: Director

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

A.M. PAPPAS LIFE SCIENCE VENTURES IV, L.P.

By: AMP&A Management IV, LLC
Its: General Partner

By: /s/ Ford S. Worthy
Name: Ford S. Worthy
Title: Partner & CFO

INVESTOR:

PV IV CEO FUND, L.P.

By: AMP&A Management IV, LLC
Its: General Partner

By: /s/ Ford S. Worthy

Name: Ford S. Worthy
Title: Partner & CFO

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

BILL & MELINDA GATES FOUNDATION

By: /s/ Andrew Farnum
Name: Andrew Farnum
Title: Director, Program-Related Investments

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

RAJESH HARICHANDRA BUDHRANI

By: /s/ Rajesh Harichandra Budhrani
Name: Rajesh Harichandra Budhrani

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

CANAAN VIII L.P.

By: Canaan Partners VIII LLC

By: /s/ Dr. Stephen Bloch
Name: Dr. Stephen Bloch
Title: Member/Manager

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

GARDEN EAST LIMITED

By: /s/ Lynn Chong
Name: Lynn Chong
Title: Authorized Signatory

By: /s/ Elwes Yap
Name: Elwes Yap
Title: Authorized Signatory

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

GLAXO GROUP LIMITED

By: /s/ Paul Williamson
Name: Paul Williamson
Title: Authorized Signatory

SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT FOR LIQUIDIA TECHNOLOGIES, INC.

INVESTOR:

HEALTHIOS CAPITAL MARKETS, LLC

By: /s/ David B. Loucks
Name: David B. Loucks
Title: CEO and President

INVESTOR:

HFA INVESTMENTS, LLC

By: /s/ Jan Haas
Name: Jan Haas
Title: President

**SIGNATURE PAGE TO SEVENTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT
FOR LIQUIDIA TECHNOLOGIES, INC.**

INVESTOR:

LEERINK REVELATION HEALTHCARE FUND I, LLC

By: /s/ Zack Scott
Name: Zack Scott
Title: Managing Partner

INVESTOR:

ROB LIPPE

/s/ Rob Lippe
Rob Lippe

INVESTOR:

**JUDITH A. MALINOSKI REVOCABLE TRUST,
AS AMENDED, DATED APRIL 28, 2009**

By: /s/ Judith A. Malinoski
Name: Judith A. Malinoski
Title: Trustee

INVESTOR:

MARIO FAMILY CREDIT LLC SERIES D

By: Melmotte LLC, its general partner

By: /s/ Christopher B. Mario
Name: Christopher B. Mario
Title: Manager

INVESTOR:

MMIC INVESTMENT HOLDINGS

By: /s/ Jason T. Sandner
Name: Jason T. Sandner
Title: CFO

INVESTOR:

MORNINGSIDE VENTURE INVESTMENTS LIMITED

By: /s/ Louise Mary Garbario
Name: Louise Mary Garbario
Title: Authorized Signatory

By: /s/ Jill Marie Franklin
Name: Jill Marie Franklin
Title: Authorized Signatory

INVESTOR:

MARY NAPIER

/s/ Mary Napier
Mary Napier

INVESTOR:

TOMAS NAVRATIL

/s/ Tomas Navratil
Tomas Navratil

INVESTOR:

NEA VENTURES 2006, LIMITED PARTNERSHIP

By:
By:

By: /s/ Louis Citron
Name: Louis Citron
Title: Vice President

NEW ENTERPRISE ASSOCIATES 12, LIMITED PARTNERSHIP

By: NEA Partners 12, Limited Partnership, its general partner
By: NEA 12 GP, LLC, its general partner

By: /s/ Louis Citron
Name: Louis Citron
Title: Authorized Signatory

INVESTOR:

JENNIE HUME ORR

/s/ Jennie Hume Orr
Jennie Hume Orr

INVESTOR:

PHARMACEUTICAL PRODUCT DEVELOPMENT, LLC

By: /s/ B. Judd Hartman
Name: B. Judd Hartman
Title: Chief Administrative Officer and General Counsel

INVESTOR:

LUKAS ROUSH

/s/ Lukas Roush
Lukas Roush

INVESTOR:

SOVEREIGN'S CAPITAL II, LP

By: /s/ Lukas Roush
Name: Lukas Roush
Title: Manager

INVESTOR:

MICHELE STONE

/s/ Michele Stone
Michele Stone

INVESTOR:

TRINITY HALL, CAMBRIDGE

By: /s/ Paul Ffolkes Davis
Name: Paul Ffolkes Davis
Title: Bursar

INVESTOR:

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL FOUNDATION, INC.

By: /s/ Matthew M. Fajack
Name: Matthew M. Fajack
Title: Chief Financial Officer and Vice Chancellor for Finance and Administration

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INVESTOR:

VELOCITY FINANCIAL GROUP, LLC

By: /s/ Jan Haas
Name: Jan Haas
Title: President

INVESTOR:

WAKEFIELD GROUP III, LLC

By: Wakefield Ventures, LLC

By: /s/ Anna Spangler Nelson
Name: Anna Spangler Nelson
Title: Manager

INVESTOR:

WAKEFIELD GROUP IV LLC

By: /s/ Anna Spangler Nelson
Name: Anna Spangler Nelson
Title: Manager

INVESTOR:

WB THIRD LLC

By: /s/ Henry N. Nassau
Name: Henry N. Nassau
Title: Manager

INVESTOR:

XERAYA LT LTD

By: /s/ Fares Zahir
Name: Fares Zahir
Title: Director

INVESTOR:

ONG ZHEN YUAN

By: /s/ Ong Zhen Yuan
Ong Zhen Yuan

INVESTOR:

1118 LIMITED

By: /s/ Ajay Ajit Kumar Karsandas Hamlai
Name: Ajay Ajit Kumar Karsandas Hamlai
Title: Authorized Signatory

By: /s/ Sujay Ajit Kumar Karsandas Hamlai
Name: Sujay Ajit Kumar Karsandas Hamlai
Title: Authorized Signatory

Schedule A

Investors

Alexandria Venture Investments, LLC
ALWP Capital SPC Ltd — ALWP Diversified Segregated Portfolio Fund
ALWP Capital SPC Ltd — ALWP Segregated Growth Segregated Portfolio Fund
Amereus Group Pte Ltd
A.M. Pappas Life Science Ventures IV, L.P.
Bill & Melinda Gates Foundation
Robert M. Brady
Canaan VIII L.P.
Alfred G. Childers
Don Denison
Garden East Limited
Glaxo Group Limited
Burton B. Goldstein, Jr.
Kathleen G. Goldstein
Green Family Trust U/T/A 11/6/95
Healthios Capital Markets, LLC
HFA Investments, LLC
Brent Jones
Greg Kopchinsky
Leerink Revelation Healthcare Fund I, LLC
Rob Lippe
Magellan's Compass 1 Limited Partnership
Judith A. Malinoski Revocable Trust, as amended, dated April 28, 2009
Mario Family Credit LLC Series D
MMIC Investment Holdings
Morningside Venture Investments Limited
Mary Napier
Tomas Navratil

New Enterprise Associates 12, Limited Partnership
NEA Ventures 2006, Limited Partnership
Jennie Hume Orr
Pharmaceutical Product Development, LLC
PV IV CEO Fund, L.P.
Luke Roush
Sovereign's Capital II, LP
Richard Stack and Nancy Stack, JT TEN
Starling Family Trust
Michele Stone
Trinity Hall, Cambridge
The University of North Carolina at Chapel Hill Foundation, Inc.
Velocity Financial Group, LLC
Wakefield Group III, LLC
Wakefield Group IV LLC
WB Third LLC
Michael S. Williams Revocable Trust
Xeraya LT Ltd
Ong Zhen Yuan
1118 Limited

Schedule B

Common Holders

Joseph M. DeSimone and Suzanne DeSimone, JT TEN

DeSimone Legacy Trust

Shumate Samulski Living Trust dated September 29, 2005

Exhibit 10.1

ELEVENTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS ELEVENTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors and the stockholders of Liquidia Technologies, Inc. (the "**Company**") effective November 6, 2014 and October 9, 2015, respectively.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to extend the period of time during which options may be granted pursuant to the Plan.

NOW, THEREFORE, the Plan shall be amended as follows:

1. Section 5 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Time for Granting Options: All Options shall be granted, if at all, within twelve (12) years from the earlier of the date the Plan is adopted by the Board or the date the plan is duly approved by the stockholders of the Company."

2. Except as herein amended, the terms and provisions of the Plan, as previously amended, shall remain in full force and effect as adopted and approved.

TENTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS TENTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors and the stockholders of Liquidia Technologies, Inc. (the "**Company**") effective August 28, 2013 and January 22, 2014, respectively.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 10,287,339 shares to 11,899,642 shares.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 11,899,642 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

NINTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS NINTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors and the stockholders of Liquidia Technologies, Inc. (the "**Company**") effective February 16, 2011 and February 17, 2011, respectively.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 9,033,327 shares to 10,287,339 shares.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 10,287,339 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

EIGHTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS EIGHTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors and the stockholders of Liquidia Technologies, Inc. (the "**Company**") effective April 14, 2010.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 6,934,407 shares to 9,033,327 shares.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 9,033,327 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

SEVENTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS SEVENTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors and the stockholders of Liquidia Technologies, Inc. (the "**Company**") effective January 8, 2010.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 4,659,972 shares to 6,934,407 shares.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 6,934,407 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

SIXTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS SIXTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors and the stockholders of Liquidia Technologies, Inc. (the "**Company**") on June 30, 2009.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 3,203,881 to 4,659,972.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 4,659,972 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

FIFTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS FIFTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors of Liquidia Technologies, Inc. (the "**Company**") on May 13, 2008.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 3,203,881 to 3,403,881.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 3,403,881 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

FOURTH AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS FOURTH AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors of Liquidia Technologies, Inc. (the "**Company**") on February 27, 2007.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 2,502,210 to 3,203,881.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 3,203,881 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

THIRD AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS THIRD AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by the Board of Directors of Liquidia Technologies, Inc. (the "**Company**") on October 23, 2006.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 1,502,210 to 2,502,210.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 2,502,210 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

SECOND AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS SECOND AMENDMENT of Liquidia Technologies, Inc. Stock Option Plan (the "**Plan**") was duly adopted by written consent of the Board of Directors of Liquidia Technologies, Inc. (the "**Company**") on May 12, 2006.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to decrease the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 1,631,935 to 1,502,210.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be 1,502,210 shares."

2. Except as herein amended, the terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved.

FIRST AMENDMENT
OF LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

THIS FIRST AMENDMENT of Liquidia Technologies, Inc. Slock Option Plan (the "**Plan**") was duly adopted by written consent of the Board of Directors of Liqudia Technologies, Inc. (the "**Company**") on November 10, 2004.

WHEREAS, the Board of Directors of the Company has adopted and the stockholders of the Company have approved the Plan; and

WHEREAS, the Board of Directors deems it to be in the best interest of the Company to amend the Plan in order to increase the maximum number of shares of common stock issuable pursuant to options granted under the Plan from 1,800,000 to 1,631,935.

NOW, THEREFORE, the Plan shall be amended as follows:

1. The first sentence of Paragraph 4 of the Plan shall be deleted in its entirety and the following substituted in lieu thereof:

   "Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be One Million Six Hundred Thirty-One Thousand Nine Hundred Thirty-Five (1,631,935) shares."

2. Except as herein amended, [he terms and provisions of the Plan shall remain in full force and effect as originally adopted and approved,

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LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN

1. Purpose. The Liquidia Technologies, Inc. Stock Option Plan (the "Plan") is established to create an additional incentive for key employees, directors and consultants or advisors of Liquidia Technologies, Inc. and any successor corporations or any present or future parent and/or subsidiary corporations of such corporation (collectively, the "Company") to promote the financial success and progress of the Company. For purposes of the Plan, a parent corporation and a subsidiary corporation shall be as defined in Sections 424(e) and 424(f) of the Internal Revenue Code of 1986, as amended (the "Code").

2. Administration. The Plan shall be administered by the Board of Directors of the Company (the "Board") and/or by a duly appointed committee of the Board having such powers as shall be specified by the Board. Any subsequent references herein to the Board shall also mean the committee if such committee has been appointed and, unless the powers of the committee have been specifically limited, the committee shall have all of the powers of the Board granted herein, other than power to terminate or amend the Plan as provided in Paragraph 11 hereof, subject to the terms of the Plan and any applicable limitations imposed by law. All questions of interpretation of the Plan or of any award granted under the Plan shall be determined by the Board, and such determinations shall be final and binding upon all persons having an interest in the Plan and/or any Option (as defined below). Any officer of the Company shall have the authority to act on behalf of the Company with respect to any matter, right, obligation or election which is the responsibility of or which is allocated to the Company herein, provided the officer has apparent authority with respect to such matter, right, obligation or election.

3. Eligibility. The Board may grant options (each an "Option") to purchase shares of the authorized but unissued Class A Voting Common Stock of the Company (the "Stock"), which Options may be either incentive stock options as defined in Section 422 of the Code (an "Incentive Stock Option") or nonqualified stock options. Options may be granted to employees, officers, directors, consultants, advisors or other independent contractors (collectively "persons"). The Board, in its sole discretion, shall determine to whom Options are granted (each an "Optionee"). An Option that the Board intends to be an Incentive Stock Option shall only be granted to an employee of the Company and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Company shall have no liability to an Optionee, if an Option (or any part thereof) which is intended to be an Incentive Stock Option does not qualify as an Incentive Stock Option. An Optionee may, if otherwise eligible, be granted additional Options.

4. Shares Subject to Option. Subject to adjustment as provided in Paragraph 9 below, the maximum number of shares of Stock which may be issued pursuant to Options granted under the Plan shall be One Million Eight Hundred Thousand (1,800,000) shares. If any outstanding Option for any reason expires or is terminated or cancelled, the shares of Stock allocable to the unexercised portion of such Option, may again be subject to an Option. It is intended that the Plan shall constitute a written compensatory benefit plan

within the meaning of Rule 701 promulgated under the Securities Act of 1933, as amended ("Rule 701"), to the extent applicable, and that the Plan shall otherwise be administered in compliance with the requirements of Rule 701. To ensure such compliance, the Company shall maintain a record of shares subject to outstanding Options under the Plan and the exercise price of the Options, plus a record of all shares of Stock issued upon the exercise of the Options and the exercise price of the Options.

5. Time for Granting Options. All Options shall be granted, if at all, within ten (10) years from the earlier of the date the Plan is adopted by the Board or the date the Plan is duly approved by the stockholders of the Company.

6. Terms, Conditions and Form of Options. Subject to the provisions of the Plan, the Board shall determine for each Option the number of shares of Stock into which the Option is exercisable, whether the Option is to be treated as an Incentive Stock Option or as a nonqualified stock option and all other terms and conditions of the Option. Each Option granted pursuant to the Plan shall comply with and be subject to the following terms and conditions:

(a) Exercise Price. The exercise price for each Option shall be established in the sole discretion of the Board; provided, however, that (i) the exercise price per share for an Incentive Stock Option shall be not less than the fair market value of a share of Stock on the date of grant and (ii) the exercise price per share of an Incentive Stock Option granted to an Optionee who on the date of the grant owns stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company within the meaning of Section 422(b)(6) of the Code (a "Ten Percent Owner Optionee") shall be not less than one hundred ten percent (110%) of the fair market value of a share of Stock on the date of grant. For this purpose, "fair market value" means the value assigned to the Stock by the Board for any date of grant, as determined pursuant to a reasonable method established by the Board that is consistent with the requirements of Sections 422 and 424 of the Code and the regulations thereunder (which method may be changed from time to time). Notwithstanding the foregoing, an Option (whether an Incentive Stock Option or a nonqualified stock option) may be granted by the Board in its discretion with an exercise price lower than the minimum exercise price set forth above if, in the case of an Incentive Stock Option, such Option is granted pursuant to an assumption or substitution for another option in accordance with the provisions of Section 424(a) of the Code. The foregoing shall not require that any such assumption or modification will result in the Option having the same characteristics, attributes or tax treatment as the Option for which it is substituted.

(b) Exercise Period of Options. The Board shall have the power to set the times on or within which an Option shall be exercisable or the events upon which an Option shall be exercisable and the term of an Option; provided, however, that (i) no Incentive Stock Option shall be exercisable after the expiration of ten (10) years after the date of grant, (ii) no Incentive Stock Option granted to a Ten Percent

Owner Optionee shall be exercisable after the expiration of five (5) years after the dale of grant, (iii) no Option shall be exercisable after the date the Optionee's employment with the Company is terminated for cause (as determined in the sole discretion of the Board unless cause is defined in an employment agreement between the Optionee and the Company in which case such definition shall be used); and (iv) each Incentive Stock Option shall terminate and cease to be exercisable no later than three (3) months after the date on which the Optionee terminates employment with the Company, unless the Optionee's employment with the Company was terminated as a result of the Optionee's death or disability (within the meaning of Section 22(e)(3) of the Code), in which event the Incentive Stock Option shall terminate and cease to be exercisable no later than twelve (12) months from the date on which the Optionee's employment terminated. For this purpose, an Optionee's employment shall be deemed to have terminated as a result of death if the Optionee dies within three (3) months following the Optionee's termination of employment.

(c) Payment of Exercise Price. Payment of the exercise price for the number of shares of Stock being purchased pursuant to any Option shall be made in cash, by check, cash equivalent or in any other manner as may be permitted by the Board in its discretion.

(d) $100,000 Limitation. The aggregate fair market value, determined as of the date of grant of the shares of the Stock with respect to which an Incentive Stock Option (determined without regard to this subparagraph) is first exercisable during any calendar year (under this Plan or under any other plan of the Company) by any Optionee shall not exceed $100,000. If such limitation would be exceeded with respect to an Optionee for a calendar year, the Incentive Stock Option shall be deemed a nonqualified slock option to the extent of such excess.

7. Forms of Stock Option Agreements. All Options shall be evidenced by a written agreement substantially in the form of the incentive stock option agreement attached hereto as **Exhibit A** or the nonqualified stock option agreement attached hereto as **Exhibit B**, as applicable, both of which are incorporated herein by reference (the "Form Option Agreements") or such other form or forms as may be approved by the Board consistent with the terms of this Plan. The Board shall have the authority from time to time to vary the terms of the Form Option Agreements either in connection with the grant of an Option or in connection with the authorization of a new standard form or forms; provided, however, that the terms and conditions of such revised or amended standard form or forms of stock option agreement shall be in accordance with the terms of the Plan.

8. Transfer of Control Upon a merger, consolidation, corporate reorganization, or any transaction in which all or substantially all of the assets or stock of the Company are sold, leased, transferred or otherwise disposed of (other than a mere reincorporation transaction or one in which the holders of voting capital stock of the Company immediately prior to such merger or consolidations continue to hold at least a majority of the voting power of

the surviving corporation) (a "Transfer of Control"), then, except as otherwise provided in a particular stock option agreement approved by the Board, any unexercisable portion of an outstanding Option that would otherwise become exercisable within twelve (12) months following the effective time of the Transfer of Control shall become immediately exercisable as of a date prior to the Transfer of Control, which date shall be determined by the Board. Upon the occurrence of a Transfer of Control, each outstanding Option, to the extent not exercised prior to the Transfer of Control, shall terminate as of the effective time of the Transfer of Control, unless such Option is assumed by the successor corporation (or parent thereof) or replaced with a comparable option to purchase shares of the capital stock of the successor corporation (or parent thereof). The exercise of any Option that was permissible solely by reason of this Paragraph 8 shall be conditioned upon the consummation of the Transfer of Control.

9. Effect of Change in Stock Subject to Plan. The Board shall make appropriate adjustments in the number and class of shares of the Stock subject to the Plan and to any outstanding Options and in the option price of any outstanding Options in the event of a stock dividend, stock split, reverse stock split, combination, reclassification or similar change in the capital structure of the Company.

10. Options Non-Transferable. Except as otherwise provided in a stock option agreement, no Option shall be assignable or transferable by the Optionee, except by will or by the laws of descent and distribution. During the lifetime of an Optionee, an Option shall be exercisable only by such Optionee.

11. Termination or Amendment. The Board may amend, suspend or terminate the Plan or any portion thereof at any time. The Board may amend, modify or terminate any outstanding Option; provided, however, that no amendment authorized hereby may adversely affect the rights of any Optionee under any then outstanding Option without the consent of the Optionee, unless such amendment is required to enable an Option designated as an Incentive Stock Option to qualify as an Incentive Stock Option. The Board shall be entitled to create, amend or delete appendices to this Plan as specified herein.

12. Withholding. Each Optionee shall pay to the Company, or make provision satisfactory to the Board for payment of, any taxes required by law to be withheld in connection with Options to such Optionee no later than the date of the event creating the tax liability. Except as the Board may otherwise provide in an award, when the Stock is registered under the Securities Exchange Act of 1934, as amended, Optionees may satisfy such tax obligations in whole or in part by delivery of shares of Stock, including shares retained from the Option creating the tax obligation, valued at their fair market value as determined by, or in a manner approved by, the Board in good faith; provided, however, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). The Company may, to

the extent permitted by law, deduct any such tax obligations from any payment of any kind otherwise due to an Optionee.

13. Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Option have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the

Optionee has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

14. Right of First Refusal.

(a) Right of First Refusal. If any Optionee proposes to sell, pledge or otherwise transfer any shares of Stock acquired upon exercise of an Option (the "Exercise Shares"), the Company shall have the right to repurchase the Exercise Shares under the terms and subject to the conditions set forth in this Paragraph 14 (the "Right of First Refusal").

(b) Notice of Proposed Transfer. Prior to any proposed transfer of the Exercise Shares, the Optionee shall give a written notice (the "Transfer Notice") to the Company describing fully the proposed transfer, including the number of Exercise Shares, the name and address of the proposed transferee (the "Proposed Transferee"), the proposed transfer price and all other material terms and conditions of the proposed transfer.

(c) Exercise of the Right of First Refusal. The Company shall have the right to purchase all, but not less than all, of the Exercise Shares at the purchase price and on the terms set forth in the Transfer Notice by delivery to the Optionee of a notice of exercise of the Right of First Refusal within thirty (30) days after the date the Transfer Notice is delivered to the Company. The Company's exercise or failure to exercise the Right of First Refusal with respect to any proposed transfer described in a Transfer Notice shall not affect the Company's ability to exercise the Right of First Refusal with respect to any proposed transfer described in any other Transfer Notice, whether or not such other Transfer Notice is issued by the Optionee or issued by any other person with respect to a proposed transfer to the same Proposed Transferee. If the Company exercises the Right of First Refusal, the Company and the Optionee shall thereupon consummate the sale of the Exercise Shares to the Company on the terms set forth in the Transfer Notice; provided however, that if the Transfer Notice provides for the payment for the Exercise Shares other than in cash, the Company shall have the option of paying for the Exercise Shares by the discounted cash equivalent of the consideration described in the Transfer Notice as reasonably determined by the Company. For purposes of the foregoing, cancellation of any indebtedness of the Optionee to the

Company shall be treated as payment to the Optionee in cash to the extent of the unpaid principal and any accrued interest cancelled.

(d) Failure to Exercise the Right of First Refusal. If the Company fails to exercise the Right of First Refusal within the period specified in Paragraph 14(c) above, the Optionee may conclude a transfer to the Proposed Transferee of the Exercise Shares on the terms and conditions described in the Transfer Notice, provided such transfer occurs not later than one hundred twenty (120) days following delivery to the Company of the Transfer Notice. Any proposed transfer on terms and conditions different from those described in the Transfer Notice, as well as any subsequent proposed transfer by the Optionee, also shall be subject to the Right of First Refusal and shall require compliance by the Optionee with the procedure described in this Paragraph 14.

(e) Transferees of the Transfer Shares. All transferees of the Exercise Shares or any interest therein, other than the Company, shall be required as a condition of such transfer to agree in writing (in a form satisfactory to the Company) that such transferee shall receive and hold such Exercise Shares or interests subject to the provisions of this Paragraph 14 providing for the Right of First Refusal with respect to any subsequent transfer.

(f) Transfers Not Subject to the Right of First Refusal. The Right of First Refusal shall not apply to any transfer or exchange of the Exercise Shares if: (i) such transfer is in connection with a Transfer of Control; (ii) such transfer is to one or more members of the Optionee's immediate family (or a trust for their benefit) provided all such transferees agree in writing to the restrictions of Paragraph 14(e); or (iii) such transfer has been approved by the Board, which approval may be granted or withheld in its complete discretion.

(g) Assignment of the Right of First Refusal. The Company shall have the right to assign the Right of First Refusal at any time.

(h) Stock Dividends Subject to First Refusal Right. If, from time to time, there is any stock dividend, stock split, recapitalization, reclassification or other change in the character or amount of any of the outstanding stock of the Company, the stock of which is subject to the provisions of an option agreement issued pursuant to the Plan, then, in such event, any and all new substituted or additional securities to which the Optionee is entitled by reason of the Optionee's ownership of the shares acquired upon exercise of an Option shall be immediately subject to the Right of First Refusal with the same force and effect as the shares subject to the Right of First Refusal immediately before such event.

(i) Early Termination of the Right of First Refusal. The other provisions of this Paragraph 14 notwithstanding, the Right of First Refusal shall terminate, and be of no further force and effect, upon the earlier of (i) the occurrence of a Transfer of Control, unless the surviving, continuing, successor, or purchasing corporation, as

the case may be, assumes the Company's rights and obligations under the Plan or (ii) the existence of a public market for the class of shares subject to the Right of First Refusal. A "public market" shall be deemed to exist if (x) such stock is listed on a national securities exchange (as that term is used in the Exchange Act) or (y) such stock is traded on the over-the-counter market and prices therefor are published daily on business days in a recognized financial journal.

(j) Escrow. To ensure shares of Stock subject to Right of First Refusal will be available for repurchase, the Company may require an Optionee to deposit certificates evidencing the Exercise Shares in escrow with the Company or an agent of the Company.

15. Legends. The Company may at any time place legends referencing any applicable federal or state securities law restriction on all certificates representing shares of stock subject to the provisions of this Option Agreement. The Optionee shall, at the request of the Company, promptly present to the Company any and all certificates representing shares acquired pursuant to the Option in the possession of the Optionee in order to effectuate the provisions of this Paragraph. Unless otherwise specified by the Company, legends placed on such certificates may include, but shall not be limited to, the following:

(a) **THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED OR HYPOTHECATED UNLESS THERE IS AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT COVERING SUCH SHARES, THE SALE IS MADE IN ACCORDANCE WITH RULE 144 OR RULE 701 UNDER THE ACT, OR THE CORPORATION RECEIVES AN OPINION OF COUNSEL FOR THE HOLDER OF THESE SHARES REASONABLY SATISFACTORY TO THE CORPORATION, STATING THAT SUCH SALE, TRANSFER ASSIGNMENT OR HYPOTHECATION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SUCH ACT.**

(b) **THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RTGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION OR ITS ASSIGNEE SET FORTH IN THE CORPORATION'S STOCK OPTION PLAN AND AN AGREEMENT BETWEEN THE CORPORATION AND THE REGISTERED HOLDER, OR SUCH HOLDER'S PREDECESSOR IN INTEREST, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THIS CORPORATION.**

(c) **THE SHARES EVIDENCED BY THIS CERTIFICATE WERE ISSUED BY THE CORPORATION TO THE REGISTERED HOLDER UPON EXERCISE OF AN INCENTIVE STOCK OPTION AS DEFINED IN SECTION 422 OF THE INTERNAL REVENUE CODE OF 1986, AS**

AMENDED. THE TRANSFER AGENT FOR THE SHARES EVIDENCED HEREBY SHALL NOTIFY THE CORPORATION IMMEDIATELY OF ANY TRANSFER OF THE SHARES BY THE REGISTERED HOLDER HEREOF MADE ON OR BEFORE THE REGISTERED HOLDER SHALL HOLD ALL SHARES PURCHASED UNDER THE OPTION IN THE REGISTERED HOLDER'S NAME (AND NOT IN THE NAME OF ANY NOMINEE) FOR A PERIOD OF ONE YEAR FROM THE DATE OF EXERCISE OF THE OPTION OR TWO YEARS FROM THE DATE OF GRANT OF THE OPTION.

16. Initial Public Offering. The event of an initial public offering of stock made by the Company under the Securities Act, Optionee shall offer, sell, contract to sell, pledge, hypothecate, grant any option to purchase or make any short sale of, or otherwise dispose of any shares of stock of the Company or any rights to acquire stock of the Company for such period of time as may be established by the underwriter for such initial public offering; provided, however, that such period of time shall not exceed one hundred eighty (180) days from the effective date of the registration statement to be filed in connection with such initial public offering.

17. Miscellaneous

(a) Nothing in this Plan or any Option granted hereunder shall confer upon any Optionee any right to continue in the employ of the Company, or to serve as a director, consultant or advisor thereof, or interfere in any way with the right of the Company to terminate such Optionee's employment at any time. Unless specifically provided otherwise, no grant of an Option shall be deemed salary or compensation for the purpose of computing benefits under any employee benefit plan or other arrangement of the Company for the benefit of its employees unless the Company shall determine otherwise. No Optionee shall have any claim to an Option until it is actually granted under the Plan. To the extent that any person acquires a right to receive payments from the Company under the Plan, such right shall, except as otherwise provided by the Board, be no greater than the right of an unsecured general creditor of the Company.

(b) The Plan and the grant of Options hereunder shall be subject to all applicable federal and state laws, rules, and regulations and to such approvals by any United States government or regulatory agency as may be required.

(c) The terms of the Plan shall be binding upon the Company, and its successors and assigns.

(d) This Plan and all awards taken hereunder shall be governed by the laws of the State of Delaware, without regard to the conflicts of laws of Delaware, without regard to the conflicts of laws rules of Delaware.

(e) If any provision of this Plan or a Form Option Agreement is or becomes or is deemed invalid, illegal or unenforceable in any jurisdiction, or would disqualify the Plan or any Form Option Agreement under any law deemed applicable by the Board, such provision shall be construed or deemed amended to conform to applicable laws or if it cannot be construed or deemed amended without, in the determination of the Board, materially altering the intent of the Plan or the Form Option Agreement, it shall be stricken and the remainder of the Plan or the Form Option Agreement shall remain in full force and effect.

(f) The Board may incorporate additional or alternative provisions for this Plan with respect to residents of one or more individual states to the extent necessary or desirable under state securities laws. Such provisions shall be set out in one or more appendices hereto which may be amended or deleted by the Board from time to time.

IN WITNESS WHEREOF, the undersigned Secretary of the Company certifies that the foregoing Plan was duly adopted by the Board of Directors of the Company on the 6th day of November, 2004 and approved by the stockholders of the Company on the 9th day of November, 2004.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Fred D. Hutchison
Fred D. Hutchison, Secretary

APPENDIX A

LIQUIDIA TECHNOLOGIES, INC.
STOCK OPTION PLAN (the "Plan")

Provisions Applicable to California Residents

Notwithstanding anything to the contrary otherwise appearing the Plan, the following provisions shall apply to any stock option or other award granted under the Plan to a resident of the State of California and, in the event of any conflict or inconsistency between the following provisions and the provisions otherwise appearing in the Plan, the following provisions shall control, solely with respect to options or other awards granted under the Plan to residents of the State of California:

- At no time shall the total number of shares of Company stock issuable upon exercise of all outstanding stock options granted pursuant to this Plan and the total number of shares provided for under any bonus or similar plan or agreement of the Company exceed the limitations set forth in Rule 260.140.45 promulgated under the California Code, based on the number of shares of the Company which are outstanding at the time the calculation is made.

- The exercise price of an option granted to a California resident may not be less than 85% of the "fair value" (as defined by Rule 260.140.50 promulgated under the California Code) of the Company's common stock at the time the option is granted (or 110% of the "fair value" in the case of any person who owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or its parent or subsidiary corporations at the time of such grant).

- The exercise period of a stock option granted to a California resident shall be no longer than 120 months from the date the option is granted.

- An option granted to a California resident shall not be transferable, other than by will or the laws of descent and distribution, or as permitted by Rule 701 of the Securities Act of 1933, as amended.

- An option granted to a California resident shall become exercisable at the rate of at least 20% per year over 5 years from the date the option is granted, subject to reasonable conditions such as continued employment. However, in the case of an option granted to a California resident who is an officer, director, or consultant of the Company or any of its affiliates, the option may become fully exercisable, subject to reasonable conditions such as continued employment, at any time or during any period established by the Company.

- Unless employment is terminated for cause as defined by applicable law, the terms of the Plan or stock option agreement or a contract of employment, the right to exercise an option granted to a California resident in the event of termination of such optionee's employment (to the extent that such optionee is otherwise entitled to exercise on the date of termination of employment) shall terminate as follows:

  - At least 6 months from the date of termination if termination was caused by death or disability; or

  - At least 30 days from the date of termination if termination was caused by an event other than death or disability.

- The Plan shall terminate with respect to California residents on the earlier of ten years after the date the Plan is adopted or the date the Plan is approved by the shareholders of the Company.

- The Plan shall be available to California residents only if the stockholders of the Company approve the Plan within 12 months before or after the date the Plan is adopted. Any option exercised by a California resident before such stockholder approval is obtained shall be rescinded if such stockholder approval is not subsequently obtained and such shares shall not be counted in determining whether the required stockholder approval is obtained.

- Each California resident participating in the Plan will be provided with a copy of the Company's annual financial statements (which need not be audited). The Company shall not be required to provide such statements to key employees whose duties with the Company assure access to equivalent information.

EXHIBIT A

THE SECURITY REPRESENTED BY THIS CERTIFICATE HAS BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISPOSITION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

LIQUIDIA TECHNOLOGIES, INC.

INCENTIVE STOCK OPTION AGREEMENT

Liquidia Technologies, Inc., a Delaware corporation (the "Company"), hereby grants to the individual named below an option (the "Option") to purchase certain shares of common stock of the Company pursuant to the Liquidia Technologies, Inc. Stock Option Plan, in the manner and subject to the provisions of this Option Agreement.

1. Definitions:

(a) "Code" shall mean the Internal Revenue Code of 1986, as amended. (All citations to Sections of the Code are to such Sections as they may from time to time be amended or renumbered.)

(b) "Company" shall mean Liquidia Technologies, Inc., a Delaware corporation, and any successor corporation thereto.

(c) "Date of Option Grant" shall mean .

(d) "Disability" shall mean disability within the meaning of Section 22(e)(3) of the Code, as determined by the Board of Directors of the Company (the "Board") in its discretion under procedures established by the Board.

(e) "Exercise Price" shall mean ($) per share as adjusted from time to time pursuant to Paragraph 9 of the Plan.

(f) "Number of Option Shares" shall mean ( ) shares of Class A Voting Common Stock of the Company as adjusted from time to time pursuant to Paragraph 9 of the Plan.

(g) "Option Term Date" shall mean the date ten (10) years after the Date of Option Grant.

(h) "Optionee" shall mean .

(i) "Plan" shall mean the Liquidia Technologies, Inc. Stock Option Plan.

2. Status of the Option. The Option is intended to be an incentive stock option as described in Section 422 of the Code, but the Company does not represent or warrant that the Option qualifies as such. The Optionee should consult with the Optionee's own tax advisors regarding the tax effects of the Option and the requirements necessary to obtain favorable income tax treatment under Section 422 of the Code.

3. Administration. All questions of interpretation concerning the Option shall be determined by the Board and shall be final and binding upon all persons having an interest in the Option.

4. Exercise of the Option.

(a) Right to Exercise. The Option shall become exercisable as set forth below, from subject to the termination provisions of Paragraphs 6 and 7 hereof and the Optionee's acknowledgement and agreement that any shares purchased upon exercise are subject to the Company's repurchase rights set forth in the Company's Bylaws:

(i) On and after , the Option may be exercised to purchase up to 25% of the Number of Option Shares.

(ii) On or after the last day of each successive full month of service as an employee of a Participating Company beginning on or after the Initial Vesting Date, the Option may be exercised to purchase up to an additional 2.084% of the Number of Option Shares.

This provision shall be interpreted such that on or after , the Option may be exercised to purchase up to 100% of the Number of Option Shares.

The schedule set forth above is cumulative, so that shares as to which the Option has become exercisable on and after a date indicated by the schedule may be purchased pursuant to exercise of the Option at any subsequent date prior to termination of the Option pursuant to Paragraph 6 hereof. The Option may be exercised at any time and from time to time to purchase up to the number of shares as to which it is then exercisable.

Notwithstanding the foregoing, if the aggregate fair market value, determined as of the Date of Option Grant, of the stock with respect to which the Option may be exercised (determined without regard to this provision) for the first time during any calendar year (under this Plan), as determined in accordance with Section 422(d) of the Code, shall exceed one hundred thousand dollars ($100,000), the Option shall be deemed a nonqualified stock option to the extent of such excess.

(b) Method of Exercise. The Option shall be exercised by written notice to the Company in the form of **Exhibit A** hereto.

(c) Restrictions on Grant of the Option and Issuance of Shares. The grant of the Option and the issuance of the shares upon exercise of the Option shall be subject to compliance with all applicable requirements of federal or state law with respect to such securities. The Option may not be exercised if the issuance of shares upon such exercise would constitute a violation of any applicable federal or state securities laws or other law or regulations. In addition, no Option may be exercised unless (i) a registration statement under the Securities Act of 1933, as amended (the "Securities Act"), shall at the time of exercise of the Option be in effect with respect to the shares issuable upon exercise of the Option or (ii) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Option may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act.

THE OPTIONEE IS CAUTIONED THAT THE OPTION MAY NOT BE EXERCISABLE UNLESS THE FOREGOING CONDITIONS ARE SATISFIED. ACCORDINGLY, THE OPTIONEE MAY NOT BE ABLE TO EXERCISE THE OPTION WHEN DESIRED EVEN THOUGH THE OPTION IS EXERCISABLE PURSUANT TO THE TERMS HEREOF.

As a condition to the exercise of the Option, the Company may require the Optionee to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

5. Non-Transferability of the Option. The Option and may not be assigned or transferred in any manner except by will or by the laws of descent and distribution.

6. Termination of the Option. The Option shall terminate upon on the first to occur of: (a) the Option Term Date; (b) the last date for exercising the Option following termination of employment as described in Paragraph 7 hereof, or (c) upon a Transfer of Control as described in Paragraph 8 of the Plan.

7. Termination of Employment.

(a) Termination of the Option. If the Optionee ceases to be an employee of the Company for any reason except death or Disability, the Option, to the extent exercisable by the Optionee on the date on which the Optionee ceased to be an employee, may be exercised by the Optionee until the earlier of (i) three (3) months after the date on which the Optionee's employment terminates or (ii) the Option Term Date. Notwithstanding the foregoing, if the Optionee's employment with the Company is terminated for cause (as determined in the sole discretion of the Board), the Option may not be exercised after the date on which the

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Optionee's employment terminates. If the Optionee's employment with the Company is terminated because of the death or Disability of the Optionee, the Option, to the extent exercisable by the Optionee on the date on which the Optionee ceased to be an employee, may be exercised by the Optionee (or the Optionee's legal representative) until the earlier of (i) the expiration of twelve (12) months from the date the Optionee's employment terminated, (ii) the Option Term Date. The Optionee's employment shall be deemed to have terminated on account of death if the Optionee dies within three (3) months after the Optionee's termination of employment. This Paragraph shall be interpreted such that the Option shall not become exercisable as to any additional number of Option Shares after the date on which the Optionee ceases to be an employee of the Participating Company Group (pursuant to this Paragraph 7) for any reason, notwithstanding any period after such cessation of employment during which the Option may remain exercisable as provided in this Paragraph 7.

(b) Exercise Prevented by Law. Except as provided in this Paragraph 7, the Option shall terminate and may not be exercised after the Optionee's employment with the Company terminates unless the exercise of the Option in accordance with this Paragraph 7 is prevented by the provisions of Paragraph 4(c) hereof. If the exercise of the Option is so prevented, the Option shall remain exercisable until the earlier of (i) three (3) months after the date the Optionee is notified by the Company that the Option is exercisable or (ii) the Option Term Date.

(c) Optionee Subject to Section 16(b). Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth above would subject the Optionee to suit under Section 16(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Option shall remain exercisable until the earliest to occur of (i) the tenth (10th) day following the date on which the Optionee would no longer be subject to such suit, (ii) the one hundred and ninetieth (190th) day after the Optionee's termination of employment, or (iii) the Option Term Date.

(d) Leave of Absence. For purposes hereof, the Optionee's employment with the Company shall not be deemed to terminate if the Optionee takes any military leave, sick leave, or other bona fide leave of absence approved by the Company of ninety (90) days or less. In the event of a leave in excess of ninety (90) days, the Optionee's employment shall be deemed to terminate on the ninety-first (91st) day of the leave unless the Optionee's right to reemployment with the Company remains guaranteed by statute or contract.

8. Rights as a Stockholder or Employee. The Optionee shall have no rights as a stockholder with respect to any shares covered by the Option until the date of the issuance of a certificate or certificates for the shares for which the Option has been exercised. Nothing in the Option shall confer upon the Optionee any right to continue in the employ of the Company or interfere in any way with any right of the Company to terminate the Optionee's employment at any time.

9. Notice of Sales Upon Disqualifying Disposition. The Optionee shall dispose of the shares acquired pursuant to the Option only in accordance with the provisions of this Option Agreement. In addition, the Optionee shall promptly notify the Chief Financial Officer of the Company if the Optionee disposes of any of the shares acquired pursuant to the Option within one (1) year from the date the Optionee exercises all or part of the Option or within two (2) years of the date of grant of the Option. Until such time as the Optionee disposes of such shares in a manner consistent with the provisions of this Option Agreement, the Optionee shall hold all shares acquired pursuant to the Option in the Optionee's name (and not in the name of any nominee) for the one-year period immediately after exercise of the Option and the two-year period immediately after grant of the Option. At any time during the one-year or two-year periods set forth above, the Company may place a legend or legends on any certificate or certificates representing shares acquired pursuant to the Option requesting the transfer agent for the Company's stock to notify the Company of any such transfers. The obligation of the Optionee to notify the Company of any such transfer shall continue notwithstanding that a legend has been placed on the certificate or certificates pursuant to the preceding sentence.

10. Binding Effect. This Option Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

11. Termination or Amendment. The Board may terminate or amend this Option Agreement at any time; provided, however, that no such termination or amendment may adversely affect the Option or any unexercised portion hereof without the consent of the Optionee unless such amendment is required to enable the Option to qualify as an Incentive Stock Option.

12. Integrated Agreement. This Option Agreement, together with the Plan and the Company's bylaws, constitute the entire understanding and agreement of the Optionee and the Company with respect to the subject matter contained herein, and there are no other agreements, understandings, restrictions, representations, or warranties among the Optionee and the Company with respect to the subject matter contained herein other than those as set forth or provided for herein and therein. To the extent contemplated herein, the provisions of this Option Agreement shall survive any exercise of the Option and shall remain in full force and effect. The terms and conditions included in the Plan are incorporated by reference herein, and to the extent that any conflict may exist between any term or provision of this Option Agreement and any term or provision of the Plan, the term or provision of the Plan shall control.

13. Applicable Law. This Option Agreement shall be governed by the laws of the State of Delaware as such laws are applied to agreements between Delaware residents entered into and to be performed entirely within the State of Delaware.

14. Effect of Certain Transactions. Notwithstanding anything to contrary in this Option Agreement, in the event that the Optionee has entered into a nondisclosure, invention

and/or non-competition agreement with the Company and the Optionee is determined, in the reasonable judgment of the Company's Board of Directors, to have materially breached such agreement, the Optionee shall forfeit any shares acquired pursuant to the Option and 100% of the Option granted pursuant to this Option Agreement, whether or not exercisable.

LIQUIDIA TECHNOLOGIES, INC.

By: _____

Name: _____

Title: _____

The Optionee represents that the Optionee is familiar with the terms and provisions of this Option Agreement, including the right of first refusal set forth in the Company's bylaws, and hereby accepts the Option subject to all of the terms and provisions thereof. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board of Directors of the Company made in good faith upon any questions arising under this Option Agreement.

The undersigned hereby acknowledges receipt of a copy of the Plan.

Date: _____ _____

(Signature of Optionee)

_____

(Printed Name of Optionee)

EXHIBIT A

[Date]

Re: Exercise of Incentive Stock Option

Dear Sirs:

Pursuant to the terms and conditions of the Incentive Stock Option Award Agreement dated as of , 200 (the "Agreement"), between ("Optionee") and Liquidia Technologies, Inc. (the "Company"), Optionee hereby agrees to purchase shares (the "Shares") of the Class A Voting Common Stock of the Company and tender payment in full for such shares in accordance with the terms of the Agreement.

The Shares are being issued to Optionee in a transaction not involving a public offering and pursuant to an exemption from registration under the Securities Act of 1933, as amended (the "1933 Act"). In connection with such purchase, Optionee represents, warrants and agrees as follows:

1. The Shares are being purchased for the Optionee's own account and not for the account of any other person, with the intent of holding the Shares for investment and not with the intent of participating, directly or indirectly, in a distribution or resale of the Shares or any portion thereof.

2. The Optionee is not acquiring the Shares based upon any representation, oral or written, by any person with respect to the future value of, or income from, the Shares, but rather upon independent examination and judgment as to the prospects of the Company.

3. The Optionee has had complete access to and the opportunity to review all material documents related to the business of the Company, has examined all such documents as the Optionee desired, is familiar with the business and affairs of the Company and realizes that any purchase of the Shares is a speculative investment and that any possible profit therefrom is uncertain.

4. The Optionee has had the opportunity to ask questions of and receive answers from the Company and its executive officers and to obtain all information necessary for the Optionee to make an informed decision with respect to the investment in the Company represented by the Shares.

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5. The Optionee is able to bear the economic risk of any investment in the Shares, including the risk of a complete loss of the investment, and the Optionee acknowledges that he or she may need to continue to bear the economic risk of the investment in the Shares for an indefinite period.

6. The Optionee understands and agrees that the Shares are being issued and sold to the Optionee without registration under any state or federal laws relating to the registration of securities, in reliance upon exemptions from registration under appropriate state and federal laws based in part upon the representations of the Optionee made herein.

7. The Company is under no obligation to register the Shares or to comply with any exemption available for sale of the Shares by the Optionee without registration, and the Company is under no obligation to act in any manner so as to make Rule 144 promulgated under the 1933 Act available with respect to any sale of the Shares by the Optionee.

8. The Optionee has not relied upon the Company or an employee or agent of the Company with respect to any tax consequences related to exercise of this Option or the disposition of the Shares. The Optionee assumes full responsibility for all such tax consequences and the filing of all tax returns and elections the Optionee may be required to or find desirable to file in connection therewith.

Very truly yours,

_____

Print Name: _____

(Address)

EXHIBIT B

THE SECURITY REPRESENTED BY THIS CERTIFICATE HAS BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISPOSITION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

LIQUIDIA TECHNOLOGIES, INC.
NONQUALIFIED STOCK OPTION AGREEMENT

Liquidia Technologies, Inc., a Delaware corporation (the "Company"), hereby grants to the individual named below an option (the "Option") to purchase certain shares of common stock of the Company pursuant to the Liquidia Technologies, Inc. Stock Option Plan, in the manner and subject to the provisions of this Option Agreement.

1. Definitions:

(a) "Code" shall mean the Internal Revenue Code of 1986, as amended. (All citations to Sections of the Code are to such Sections as they may from time to time be amended or renumbered.)

(b) "Company" shall mean Liquidia Technologies, Inc., a Delaware corporation, and any successor corporation thereto.

(c) "Date of Option Grant" shall mean .

(d) "Exercise Price" shall mean Dollars ($) per share, as adjusted from time to time pursuant to Paragraph 9 of the Plan.

(e) "Number of Option Shares" shall mean ( ) shares of Class A Voting Common Stock of the Company as adjusted from time to time pursuant to Paragraph 9 of the Plan.

(f) "Option Term Date" shall mean the date ten (10) years after the Date of Option Grant.

(g) "Optionee" shall mean .

(h) "Plan" shall mean the Liquidia Technologies, Inc. Stock Option Plan.

(i) "Transfer of Control" shall mean a merger, consolidation, corporate reorganization or any transaction in which all or substantially all of the assets of

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the Company are sold, leased, transferred or otherwise disposed of (other than a mere reincorporation transaction or one in which the holders of capital stock of the Company immediately prior to such merger or consolidation continue to hold at least a majority of the voting power of the surviving corporation).

2. Nonqualified Stock Option. The Option is intended to be a nonqualified stock option. The Optionee should consult with the Optionee's own tax advisors regarding the tax effects of this Option.

3. Administration. All questions of interpretation concerning this Option Agreement shall be determined by the Board of Directors (the "Board") and shall be final and binding upon all persons having an interest in the Option.

4. Exercise of the Option.

(a) Right to Exercise. The Option shall become exercisable from time to time, subject to the schedule set forth below, in whole or in part, and subject to the termination provisions of Paragraphs 6 and 7 hereof and the Optionee's acknowledgement and agreement that any shares purchased upon exercise are subject to the Company's repurchase rights set forth in the Company's Bylaws:

(i) On and after , the Option may be exercised to purchase up to 25% of the Number of Option Shares.

(ii) On or after the last day of each successive month thereafter, the Option may be exercised to purchase up to an additional % of the Number of Option Shares.

This provision shall be interpreted such that on or after , the Option may be exercised to purchase up to 100% of the Number of Option Shares.

The schedule set forth above is cumulative, so that shares as to which the Option has become exercisable on and after a date indicated by the schedule may be purchased pursuant to exercise of the Option at any subsequent date prior to termination of the Option pursuant to Paragraph 6 hereof. The Option may be exercised at any time and from time to time to purchase up to the number of shares as to which it is then exercisable.

(b) Method of Exercise. The Option shall be exercised by written notice to the Company in the form of **Exhibit A** hereto.

(c) Restrictions on Grant of the Option and Issuance of Shares. The grant of the Option and the issuance of the shares upon exercise of the Option shall be subject to compliance with all applicable requirements of federal or state law with respect to such securities. The Option may not be exercised if the issuance of shares upon

such exercise would constitute a violation of any applicable federal or state securities laws or other law or regulations. In addition, no Option may be exercised unless (i) a registration statement under the Securities Act of 1933, as amended (the "Securities Act"), shall at the time of exercise of the Option be in effect with respect to the shares issuable upon exercise of the Option or (ii) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Option may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act.

THE OPTIONEE IS CAUTIONED THAT THE OPTION MAY NOT BE EXERCISABLE UNLESS THE FOREGOING CONDITIONS ARE SATISFIED. ACCORDINGLY, THE OPTIONEE MAY NOT BE ABLE TO EXERCISE THE OPTION WHEN DESIRED EVEN THOUGH THE OPTION IS EXERCISABLE PURSUANT TO THE TERMS HEREOF.

As a condition to the exercise of the Option, the Company may require the Optionee to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

5. Non-Transferability of the Option. The Option may not be assigned or transferred in any manner except by will or by the laws of descent and distribution.

6. Termination of the Option. The Option shall terminate upon the first to occur of: (a) the Option Term Date; (b) the last date for exercising the Option following termination of engagement as described in Paragraph 7 below; or (c) upon a Transfer of Control as described in Paragraph 8 of the Plan.

7. Termination of Engagement.

(a) Termination of the Option. If the Optionee ceases for any reason to be engaged with the Company, the Option, to the extent exercisable by the Optionee on the date on which the Optionee ceased to be so engaged, may be exercised by the Optionee until the earlier of (i) three (3) months after the date on which the Optionee's engagement terminates or (ii) the Option Term Date. Notwithstanding the foregoing, if the Optionee's engagement is terminated for cause (as determined in the sole discretion of the Board) the Option may not be exercised after the date on which the engagement is so terminated. This Option Agreement shall be interpreted such that the Option shall not become exercisable as to any additional Option Shares after the date on which the Optionee ceases to be engaged with the Company.

(b) Exercise Prevented by Law. Except as provided in this Paragraph 7, the Option shall terminate and may not be exercised after the Optionee's employment with the Company terminates unless the exercise of the Option in accordance with this

Paragraph 7 is prevented by the provisions of Paragraph 4(c) above. If the exercise of the Option is so prevented, the Option shall remain exercisable until the earlier of (i) three (3) months after the date the Optionee is notified by the Company that the Option is exercisable or (ii) the Option Term Date.

(c) Optionee Subject to Section 16(b). Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth above would subject the Optionee to suit under Section 16(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Option shall remain exercisable until the earliest to occur of (i) the tenth (10th) day following the date on which the Optionee would no longer be subject to such suit, (ii) the one hundred and ninetieth (190th) day after the Optionee's termination of employment, or (iii) the Option Term Date.

(d) Engagement with the Company. For purposes of this Option Agreement, "engagement with the Company" shall mean service as a director, consultant or advisor to the Company.

8. Rights as a Stockholder or Employee. The Optionee shall have no rights as a stockholder with respect to any shares covered by the Option until the date of the issuance of a certificate or certificates for the shares for which the Option has been exercised. Nothing in the Option shall confer upon the Optionee any right to engagement with the Company or interfere in any way with any right of the Company to terminate the Optionee's engagement at any time.

9. Binding Effect. This Option Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

10. Termination or Amendment. The Board may terminate or amend this Option Agreement at any time; provided, however, that no such termination or amendment may adversely affect the Option or any unexercised portion hereof without the consent of the Optionee.

11. Integrated Agreement. This Option Agreement, together with the Plan and the Company's bylaws, constitute the entire understanding and agreement of the Optionee and the Company with respect to the subject matter contained herein, and there are no other agreements, understandings, restrictions, representations, or warranties among the Optionee and the Company with respect to the subject matter contained herein other than those as set forth or provided for herein and therein. To the extent contemplated herein, the provisions of this Option Agreement shall survive any exercise of the Option and shall remain in full force and effect. The terms and conditions included in the Plan are incorporated by reference herein, and to the extent that any conflict may exist between any term or provision of this Option Agreement and any term or provision of the Plan, the term or provision of the Plan shall control.

12. Applicable Law. This Option Agreement shall be governed by the laws of the State of Delaware as such laws are applied to agreements between Delaware residents entered into and to be performed entirely within the State of Delaware.

13. Effect of Certain Transactions. Notwithstanding anything to contrary in this Option Agreement, in the event that the Optionee has entered into a nondisclosure, invention and/or non-competition agreement with the Company and the Optionee is determined, in the reasonable judgment of the Company's Board of Directors, to have materially breached any such agreement, the Optionee shall forfeit any shares acquired pursuant to the Option and 100% of the Option granted pursuant to this Option Agreement, whether or not exercisable.

LIQUIDIA TECHNOLOGIES, INC.

By: _____
Name: _____
Title: _____

The Optionee represents that the Optionee is familiar with the terms and provisions of this Option Agreement, including the right of first refusal set forth in the Company's Bylaws, and hereby accepts the Option subject to all of the terms and provisions thereof. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board of Directors of the Company made in good faith upon any questions arising under this Option Agreement.

The undersigned hereby acknowledges receipt of a copy of the Plan.

Date: _____

_____
(Signature of Optionee)

_____
(Printed Name of Optionee)

EXHIBIT A

[Date]

Re: Exercise of Non-Qualified Stock Option

Dear Sirs:

Pursuant to the terms and conditions of the Nonqualified Stock Option Award Agreement dated as of , 200 (the "Agreement"), between ("Optionee") and Liquidia Technologies, Inc. (the "Company"), the Optionee hereby agrees to purchase shares (the "Shares") of the Class A Voting Common Stock of the Company and tender payment in full for such shares in accordance with the terms of the Agreement.

The Shares are being issued to Optionee in a transaction not involving a public offering and pursuant to an exemption from registration under the Securities Act of 1933, as amended (the "1933 Act"). In connection with such purchase, Optionee represents, warrants and agrees as follows:

1. The Shares are being purchased for the Optionee's own account, and not for the account of any other person, with the intent of holding the Shares for investment and not with the intent of participating, directly or indirectly, in a distribution or resale of the Shares or any portion thereof.

2. The Optionee is not acquiring the Shares based upon any representation, oral or written, by any person with respect to the future value of, or income from, the Shares, but rather upon independent examination and judgment as to the prospects of the Company.

3. The Optionee has had complete access to and the opportunity to review all material documents related to the business of the Company, has examined all such documents as the Optionee desired, is familiar with the business and affairs of the Company and realizes that any purchase of the Shares is a speculative investment and that any possible profit therefrom is uncertain.

4. The Optionee has had the opportunity to ask questions of and receive answers from the Company and its executive officers and to obtain all information necessary for the Optionee to make an informed decision with respect to the investment in the Company represented by the Shares.

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5. The Optionee is able to bear the economic risk of any investment in the Shares, including the risk of a complete loss of the investment, and the Optionee acknowledges that he or she may need to continue to bear the economic risk of the investment in the Shares for an indefinite period.

6. The Optionee understands and agrees that the Shares are being issued and sold to the Optionee without registration under any state or federal laws relating to the registration of securities, in reliance upon exemptions from registration under appropriate state and federal laws based in part upon the representations of the Optionee made herein.

7. The Company is under no obligation to register the Shares or to comply with any exemption available for sale of the Shares by the Optionee without registration, and the Company is under no obligation to act in any manner so as to make Rule 144 promulgated under the 1933 Act available with respect to any sale of the Shares by the Optionee.

8. The Optionee has not relied upon the Company or an employee or agent of the Company with respect to any tax consequences related to exercise of this Option or the disposition of the Shares. The Optionee assumes full responsibility for all such tax consequences and the filing of all tax returns and elections the Optionee may be required to or find desirable to file in connection therewith.

Very truly yours,

_____

Print Name: _____

(Address)

LIQUIDIA TECHNOLOGIES, INC.

2016 EQUITY INCENTIVE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: May 18, 2016
APPROVED BY THE STOCKHOLDERS: August 10, 2016
TERMINATION DATE: May 17, 2026

1. GENERAL.

(a) Successor to and Continuation of Prior Plan. The Plan is intended as the successor to and continuation of the Liquidia Technologies, Inc. Stock Option Plan, as amended (the "***Prior Plan***"). Following the Effective Date, no additional option awards will be granted under the Prior Plan. All Awards granted on or after the Effective Date will be granted under this Plan. All option awards granted under the Prior Plan will remain subject to the terms of the Prior Plan. Any shares that would otherwise remain available for future grants under the Prior Plan as of the Effective Date will cease to be available under the Prior Plan at such time.

(b) Eligible Stock Award Recipients. Employees, Directors and Consultants are eligible to receive Stock Awards.

(c) Available Stock Awards. The Plan provides for the grant of the following types of Stock Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights, (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards and (vi) Other Stock Awards.

(d) Purpose. The Plan, through the grant of Stock Awards, is intended to help the Company secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and provide a means by which the eligible recipients may benefit from increases in value of the Common Stock.

2. ADMINISTRATION.

(a) Administration by the Board. The Board will administer the Plan. The Board may delegate administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) Powers of the Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine (A) who will be granted Stock Awards; (B) when and how each Stock Award will be granted; (C) what type of Stock Award will be granted; (D) the provisions of each Stock Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Stock Award; (E) the number of shares of Common Stock subject to, or the cash value of, a Stock Award; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Stock Awards. The

Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it will deem necessary or expedient to make the Plan or Stock Award fully effective.

(iii) To settle all controversies regarding the Plan and Stock Awards granted under it.

(iv) To accelerate, in whole or in part, the time at which a Stock Award may be exercised or vest (or the time at which cash or shares of Common Stock may be issued in settlement thereof).

(v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or a Stock Award Agreement, suspension or termination of the Plan will not impair a Participant's rights under the Participant's then-outstanding Stock Award without the Participant's written consent except as provided in subsection (viii) below.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or bringing the Plan or Stock Awards granted under the Plan into compliance with the requirements for Incentive Stock Options or ensuring that they are exempt from, or compliant with, the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (E) materially extends the term of the Plan, or (F) materially expands the types of Stock Awards available for issuance under the Plan. Except as otherwise provided in the Plan or a Stock Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Stock Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of Section 422 of the Code regarding Incentive Stock Options.

(viii) To approve forms of Stock Award Agreements for use under the Plan and to amend the terms of any one or more Stock Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Stock Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however*, that a Participant's rights under any Stock Award will not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, (1) a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights, and (2) subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Stock Awards without the affected Participant's consent (A) to maintain the qualified status of the Stock Award as an

Incentive Stock Option under Section 422 of the Code; (B) to change the terms of an Incentive Stock Option, if such change results in impairment of the Stock Award solely because it impairs the qualified status of the Stock Award as an Incentive Stock Option under Section 422 of the Code; (C) to clarify the manner of exemption from, or to bring the Stock Award into compliance with, Section 409A of the Code; or (D) to comply with other applicable laws.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Stock Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Stock Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction).

(xi) To effect, with the consent of any adversely affected Participant, (A) the reduction of the exercise, purchase or strike price of any outstanding Stock Award; (B) the cancellation of any outstanding Stock Award and the grant in substitution therefor of a new (1) Option or SAR, (2) Restricted Stock Award, (3) Restricted Stock Unit Award, (4) Other Stock Award, (5) cash and/or (6) other valuable consideration determined by the Board, in its sole discretion, with any such substituted award (x) covering the same or a different number of shares of Common Stock as the cancelled Stock Award and (y) granted under the Plan or another equity or compensatory plan of the Company; or (C) any other action that is treated as a repricing under generally accepted accounting principles.

(c) Delegation to Committee. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee, as applicable). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or

Committee (as applicable). The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(d) Delegation to an Officer. The Board may delegate to one or more Officers the authority to do one or both of the following: (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by applicable law, other Stock Awards) and, to the extent permitted by applicable law, the terms of such Stock Awards, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Employees; *provided*, *however*, that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Any such Stock Awards will be granted on the form of Stock Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value pursuant to Section 13(t) below.

(e) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve.

(i) Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date will not exceed 1,612,504 shares (the ***"Share Reserve"***).

(ii) For clarity, the Share Reserve in this Section 3(a) is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 7(a).

(b) Reversion of Shares to the Share Reserve. If a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement will not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan. If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased will revert to and again become available for issuance under the Plan. Any shares reacquired by the Company in satisfaction of tax withholding obligations on a Stock Award or as consideration for the exercise or purchase price of a Stock Award will again become available for issuance under the Plan.

(c) Incentive Stock Option Limit. Subject to the Share Reserve and Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options will be a number of shares of Common Stock equal to three multiplied by the Share Reserve.

(d) Source of Shares. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. ELIGIBILITY.

(a) Eligibility for Specific Stock Awards. Incentive Stock Options may be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided*, *however*, that Stock Awards may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any "parent" of the Company, as such term is defined in Rule 405, unless (i) the stock underlying such Stock Awards is treated as "service recipient stock" under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction), (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from Section 409A of the Code, or (iii) the Company, in consultation with its legal counsel, has

determined that such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(b) Ten Percent Stockholders. A Ten Percent Stockholder will not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five years from the date of grant.

(c) Consultants. A Consultant will not be eligible for the grant of a Stock Award if, at the time of grant, either the offer or sale of the Company's securities to such Consultant is not exempt under Rule 701 because of the nature of the services that the Consultant is providing to the Company, because the Consultant is not a natural person, or because of any other provision of Rule 701, unless the Company determines that such grant need not comply with the requirements of Rule 701 and will satisfy another exemption under the Securities Act as well as comply with the securities laws of all other relevant jurisdictions**.**

5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided*, *however*, that each Stock Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Stock Award Agreement or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of 10 years from the date of its grant or such shorter period specified in the Stock Award Agreement.

(b) Exercise Price. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Stock Award is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value of the Common Stock subject to the Stock Award if such Stock Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A of the Code and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

(c) Purchase Price for Options. The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if an Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company will accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations;

(v) according to a deferred payment or similar arrangement with the Optionholder; *provided, however*, that interest will compound at least annually and will be charged at the minimum rate of interest necessary to avoid (A) the imputation of interest income to the Company and compensation income to the Optionholder under any applicable provisions of the Code, and (B) the classification of the Option as a liability for financial accounting purposes; or

(vi) in any other form of legal consideration that may be acceptable to the Board and specified in the applicable Stock Award Agreement.

(d) Exercise and Payment of a SAR. To exercise any outstanding SAR, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such SAR. The appreciation distribution payable on the exercise of a SAR will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the SAR) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such SAR, and with respect to which the Participant is exercising the SAR on such date, over (B) the aggregate strike price of the number of Common Stock equivalents with respect to which the Participant is exercising the SAR on such date. The appreciation distribution may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Award Agreement evidencing such SAR.

(e) Transferability of Options and SARs. The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board will determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs will apply:

(i) Restrictions on Transfer. An Option or SAR will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. The Board may permit transfer

of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided in the Plan, neither an Option nor a SAR may be transferred for consideration.

(ii) Domestic Relations Orders. Subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulation 1.421-1(b)(2). If an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) Beneficiary Designation. Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, upon the death of the Participant, will thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, upon the death of the Participant, the executor or administrator of the Participant's estate will be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

(f) Vesting Generally. The total number of shares of Common Stock subject to an Option or SAR may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of performance goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

(g) Termination of Continuous Service. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Stock Award as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date three months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable Stock Award Agreement, which period will not be less than 30 days if necessary to comply with applicable laws unless such termination is for Cause) and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR (as applicable) within the applicable time frame, the Option or SAR will terminate.

(h) Extension of Termination Date. If the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR will terminate on the earlier of (i) the expiration of a total period of time (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement. In addition, unless otherwise provided in a Participant's

Stock Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR will terminate on the earlier of (i) the expiration of the period of time (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement.

(i) Disability of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 12 months following such termination of Continuous Service (or such longer or shorter period specified in the Stock Award Agreement, which period will not be less than six months if necessary to comply with applicable laws unless such termination is for Cause), and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR (as applicable) will terminate.

(j) Death of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Stock Award Agreement for exercisability after the termination of the Participant's Continuous Service (for a reason other than death), then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date 18 months following the date of death (or such longer or shorter period specified in the Stock Award Agreement, which period will not be less than six months if necessary to comply with applicable laws unless such termination is for Cause), and (ii) the expiration of the term of such Option or SAR as set forth in the Stock Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the applicable time frame, the Option or SAR (as applicable) will terminate.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Stock Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option or SAR will terminate immediately upon such Participant's termination of Continuous Service, and the Participant will be prohibited from exercising his or her Option or SAR from and after the date of such termination of Continuous Service.

(l) Non-Exempt Employees. If an Option or SAR is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Option or SAR (although the Stock Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued,

or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Stock Award Agreement, in another agreement between the Participant and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay. To the extent permitted and/or required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt employee in connection with the exercise, vesting or issuance of any shares under any other Stock Award will be exempt from the employee's regular rate of pay, the provisions of this Section 5(l) will apply to all Stock Awards and are hereby incorporated by reference into such Stock Award Agreements.

(m) Early Exercise of Options. An Option may, but need not, include a provision whereby the Optionholder may elect at any time before the Optionholder's Continuous Service terminates to exercise the Option as to any part or all of the shares of Common Stock subject to the Option prior to the full vesting of the Option. Subject to the "Repurchase Limitation" in Section 8(l), any unvested shares of Common Stock so purchased may be subject to a repurchase right in favor of the Company or to any other restriction the Board determines to be appropriate. Provided that the "Repurchase Limitation" in Section 8(l) is not violated, the Company will not be required to exercise its repurchase right until at least six months (or such longer or shorter period of time required to avoid classification of the Option as a liability for financial accounting purposes) have elapsed following exercise of the Option unless the Board otherwise specifically provides in the Option Agreement.

(n) Right of Repurchase. Subject to the "Repurchase Limitation" in Section 8(l), the Option or SAR may include a provision whereby the Company may elect to repurchase all or any part of the vested shares of Common Stock acquired by the Participant pursuant to the exercise of the Option or SAR.

(o) Right of First Refusal. The Option or SAR may include a provision whereby the Company may elect to exercise a right of first refusal following receipt of notice from the Participant of the intent to transfer all or any part of the shares of Common Stock received upon the exercise of the Option or SAR. Such right of first refusal will be subject to the "Repurchase Limitation" in Section 8(l). Except as expressly provided in this Section 5(o) or in the Stock Award Agreement, such right of first refusal will otherwise comply with any applicable provisions of the bylaws of the Company.

6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARS.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock underlying a Restricted Stock Award may be (i) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (ii) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical. Each Restricted Stock Award Agreement will conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Subject to the "Repurchase Limitation" in Section 8(l), shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right, any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement will be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board will determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(v) Dividends. A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the will Board deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) Payment. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the

delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) Dividend Equivalents. Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) Termination of Participant's Continuous Service. Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(vii) Compliance with Section 409A of the Code. Notwithstanding anything to the contrary set forth herein, any Restricted Stock Unit Award granted under the Plan that is not exempt from the requirements of Section 409A of the Code shall contain such provisions so that such Restricted Stock Unit Award will comply with the requirements of Section 409A of the Code. Such restrictions, if any, shall be determined by the Board and contained in the Restricted Stock Unit Award Agreement evidencing such Restricted Stock Unit Award. For example, such restrictions may include, without limitation, a requirement that any Common Stock that is to be issued in a year following the year in which the Restricted Stock Unit Award vests must be issued in accordance with a fixed pre-determined schedule.

(c) Other Stock Awards. Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, the Board will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

7. COVENANTS OF THE COMPANY.

(a) Availability of Shares. The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Stock Awards.

(b) Securities Law Compliance. The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such

regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for

failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of a Stock Award or the subsequent issuance of cash or Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) No Obligation to Notify or Minimize Taxes. The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

8. MISCELLANEOUS.

(a) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Stock Awards will constitute general funds of the Company.

(b) Corporate Action Constituting Grant of Stock Awards. Corporate action constituting a grant by the Company of a Stock Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (e.g., Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Stock Award Agreement or related grant documents as a result of a clerical error in the papering of the Stock Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Stock Award Agreement or related grant documents.

(c) Stockholder Rights. No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to a Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Stock Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to the Stock Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Stock Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Stock Award to the Participant, the Board has the right in its sole

discretion to (x) make a corresponding reduction in the number of shares subject to any portion of such Stock Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Stock Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Stock Award that is so reduced or extended.

(f) Incentive Stock Option Limitations. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds $100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(g) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that the Participant is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(h) Withholding Obligations. Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to a Stock Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Stock Award; *provided*, *however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from a Stock Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Stock Award Agreement.

(i) Electronic Delivery. Any reference herein to a "written" agreement or document will include any agreement or document delivered electronically or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

(j) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(k) Compliance with Section 409A of the Code. To the extent that the Board determines that any Stock Award granted hereunder is subject to Section 409A of the Code, the Stock Award Agreement evidencing such Stock Award shall incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and Stock Award Agreements shall be interpreted in accordance with Section 409A of the Code. Notwithstanding anything to the contrary in the Plan (and unless the Stock Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding a Stock Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the date that is six months following the date of such Participant's "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

(l) Repurchase Limitation. The terms of any repurchase right will be specified in the Stock Award Agreement. The repurchase price for vested shares of Common Stock will be the Fair Market Value of the shares of Common Stock on the date of repurchase. The repurchase price for unvested shares of Common Stock will be the lower of (i) the Fair Market Value of the shares of Common Stock on the date of repurchase or (ii) their original purchase price. However, the Company will not exercise its repurchase right until at least six months (or such longer or shorter period of time necessary to avoid classification of the Stock Award as a liability for financial accounting purposes) have elapsed following delivery of shares of Common Stock subject to the Stock Award, unless otherwise specifically provided by the Board.

9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) **Capitalization Adjustments**. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), and (iii) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

(b) **Dissolution or Liquidation**. Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards

(other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided*, *however*, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) **Corporate Transaction**. The following provisions will apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board may take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board determines (or, if the Board does not determine such a date, to the date that is five days prior to the effective date of the Corporate Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction; *provided*, *however*, that the Board may require Participants to complete and deliver to the Company a notice of exercise before the effective date of a Corporate Transaction, which exercise is contingent upon the effectiveness of such Corporate Transaction;

(iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration as the Board, in its sole discretion, may consider appropriate;

(vi) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, without the payment of consideration; and

(vii) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of

the Stock Award immediately prior to the effective time of the Corporate Transaction, over (B) any exercise price payable by such holder in connection with such exercise. For clarity, this payment may be zero ($0) if the value of the property is equal to or less than the exercise price. Payments under this provision may be delayed to the same extent that payment of consideration to the holders of the Company's Common Stock in connection with the Corporate Transaction is delayed as a result of escrows, earn outs, holdbacks or any other contingencies.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of a Stock Award.

(d) **Change in Control**. A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration will occur.

10. **PLAN TERM; EARLIER TERMINATION OR SUSPENSION OF THE PLAN**.

(a) **Plan Term**. The Board may suspend or terminate the Plan at any time. Unless terminated sooner by the Board, the Plan will automatically terminate on the day before the 10th anniversary of the earlier of (i) the date the Plan is adopted by the Board, or (ii) the date the Plan is approved by the stockholders of the Company. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) **No Impairment of Rights**. Suspension or termination of the Plan will not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant or as otherwise permitted in the Plan.

11. **EFFECTIVE DATE OF PLAN**.

This Plan will become effective on the Effective Date.

12. **CHOICE OF LAW**.

The laws of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. **DEFINITIONS**. As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "***Affiliate***" means, at the time of determination, any "parent" or "majority-owned subsidiary" of the Company, as such terms are defined in Rule 405. The Board will have the authority to determine the time or times at which "parent" or "majority-owned subsidiary" status is determined within the foregoing definition.

(b) "***Board***" means the Board of Directors of the Company.

(c) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization,

recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(d) "***Cause***" will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant's commission of any felony or any crime involving fraud, dishonesty or moral turpitude under

the laws of the United States or any state thereof; (ii) such Participant's attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (iii) such Participant's intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iv) such Participant's unauthorized use or disclosure of the Company's confidential information or trade secrets; or (v) such Participant's gross misconduct. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause will be made by the Company, in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Stock Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(e) "***Change in Control***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (C) solely because the level of Ownership held by any Exchange Act Person (the "***Subject Person***") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same

proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction; or

(iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition.

Notwithstanding the foregoing definition or any other provision of this Plan, (A) the term Change in Control will not include (i) a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company or (ii) to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the foregoing definition with respect to Stock Awards subject to such agreement; *provided*, *however,* that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition will apply.

(f) "***Code***" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(g) "***Committee***" means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(h) "***Common Stock***" means the Class A Voting Common Stock of the Company.

(i) "***Company***" means Liquidia Technologies, Inc., a Delaware corporation.

(j) "***Consultant***" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a "Consultant" for purposes of the Plan.

(k) "***Continuous Service***" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Director or Consultant or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, will not terminate a Participant's Continuous Service; *provided*, *however*, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board in its sole discretion, such Participant's Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or to a Director will not constitute an interruption of Continuous Service. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service will be considered interrupted in the

case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(l) "***Corporate Transaction***" means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(m) "***Director***" means a member of the Board.

(n) "***Disability***" means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than twelve (12) months as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(o) "***Effective Date***" means the effective date of this Plan, which is the earlier of (i) the date that this Plan is first approved by the Company's stockholders, and (ii) the date this Plan is adopted by the Board.

(p) "***Employee***" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(q) "***Entity***" means a corporation, partnership, limited liability company or other entity.

(r) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(s) "***Exchange Act Person***" means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the

Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities.

(t) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined by the Board in compliance with Section 409A of the Code or, in the case of an Incentive Stock Option, in compliance with Section 422 of the Code.

(u) "***Incentive Stock Option***" means an option granted pursuant to Section 5 of the Plan that is intended to be, and that qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code.

(v) "***Nonstatutory Stock Option***" means an option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

(w) "***Officer***" means any person designated by the Company as an officer.

(x) "***Option***" means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(y) "***Option Agreement***" means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

(z) "***Optionholder***" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(aa) "***Other Stock Award***" means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(c).

(bb) "***Other Stock Award Agreement***" means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement will be subject to the terms and conditions of the Plan.

(cc) "***Own***," "***Owned***," "***Owner***," "***Ownership***" A person or Entity will be deemed to "Own," to have "Owned," to be the "Owner" of, or to have acquired "Ownership" of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(dd) "***Participant***" means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(ee) "***Plan***" means this 2016 Equity Incentive Plan.

(ff) "***Restricted Stock Award***" means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(gg) "***Restricted Stock Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

(hh) "***Restricted Stock Unit Award***" means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(ii) "***Restricted Stock Unit Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

(jj) "***Rule 405***" means Rule 405 promulgated under the Securities Act.

(kk) "***Rule 701***" means Rule 701 promulgated under the Securities Act.

(ll) "***Securities Act***" means the Securities Act of 1933, as amended.

(mm) "***Stock Appreciation Right***" or "***SAR***" means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

(nn) "***Stock Appreciation Right Agreement***" means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement will be subject to the terms and conditions of the Plan.

(oo) "***Stock Award***" means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right or any Other Stock Award.

(pp) "***Stock Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

(qq) "***Subsidiary***" means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(rr) "***Ten Percent Stockholder***" means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate.

LIQUIDIA TECHNOLOGIES, INC.
AMENDMENT NO.1 TO 2016 EQUITY INCENTIVE PLAN

December 8, 2016

WHEREAS, Liquidia Technologies, Inc. (the "**Company**") is the sponsor of the Liquidia Technologies, Inc. 2016 Equity Incentive Plan (the "**Plan**"); and

WHEREAS, the Company desires to amend the Plan to provide for a more flexible "net exercise" arrangement as a method to exercise stock options;

NOW, THEREFORE, effective as of December 7, 2016, the Plan is hereby amended as follows:

1. Section 5(c)(iv) of the Plan is hereby deleted in its entirety and replaced with the following:

"subject to such limits and approvals as the Board may impose from time to time, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company will accept a cash or other payment from the Participant to the extent there remains any balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations."

2. Except as set forth in this Amendment, the Plan shall be unaffected hereby and shall remain in full force and effect.

[*Signature Page Immediately Follows*]

IN WITNESS WHEREOF, the undersigned has caused this Amendment to be executed as of the date first set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Timothy Albury
Name: Timothy Albury
Title: Chief Financial Officer

[SIGNATURE PAGE TO 2016 EQUITY INCENTIVE PLAN AMENDMENT NO. 1]

LIQUIDIA TECHNOLOGIES, INC.
AMENDMENT NO.2 TO 2016 EQUITY INCENTIVE PLAN

February 2, 2018

WHEREAS, Liquidia Technologies, Inc. (the "**Company**") is the sponsor of the Liquidia Technologies, Inc. 2016 Equity Incentive Plan (as amended, the "**Plan**"); and

WHEREAS, the Company desires to amend the Plan to increase the number of shares of Common Stock available for issuance under the Plan; and

WHEREAS, Section 2(b)(vi) of the Plan permits the Board to amend the Plan in whole or in part at any time; provided, however, that any Plan amendment that materially increases the number of shares of Common Stock available for issuance under the Plan is made subject to shareholder approval of such amendment;

NOW, THEREFORE, effective as of February 2, 2018, the Plan is hereby amended as follows:

1. Section 3(a)(i) of the Plan is deleted and replaced with the following:

   Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards shall not exceed 22,811,308 shares (the "***Share Reserve***").

2. Except as set forth in this Amendment, the Plan shall be unaffected hereby and shall remain in full force and effect.

[*Signature Page Immediately Follows*]

IN WITNESS WHEREOF, the undersigned has caused this Amendment to be executed as of the date first set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Neal F. Fowler
Name: Neal F. Fowler
Title: Chief Executive Officer

[SIGNATURE PAGE TO 2016 EQUITY INCENTIVE PLAN AMENDMENT NO. 2]

LIQUIDIA TECHNOLOGIES, INC.
RESTRICTED STOCK UNIT GRANT NOTICE
(2016 EQUITY INCENTIVE PLAN)

Liquidia Technologies, Inc. (the ***"Company"***) hereby awards to Participant a Restricted Stock Unit Award for the number of shares of the Company's Common Stock set forth below (the ***"Award"***). The Award is subject to all of the terms and conditions as set forth herein and in the Company's 2016 Equity Incentive Plan, as amended (the ***"Plan"***), and the Restricted Stock Unit Agreement (the "***Award Agreement***"), both of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Award Agreement will have the meanings set forth in the Plan or the Award Agreement. Except as explicitly provided herein or in the Award Agreement, in the event of any conflict between the terms in the Award and the Plan, the terms of the Plan will control.

Participant:	
Date of Grant:	
Vesting Commencement Date:	
Number of restricted stock units ("***RSUs***"):	
Consideration:	Participant's Services

Vesting Schedule: Participant will receive a benefit with respect to the RSUs only if the RSUs vest. The time and service-based requirement (the "***Service-Based Requirement***") must be satisfied in order for a RSU to vest.

Service-Based Requirement:

The Service-Based Requirement will be satisfied in installments as to the RSUs as follows: [ ]% of the total number of RSUs awarded will satisfy the Service-Based Requirement on the first anniversary of the Vesting Commencement Date and the remaining [ ]% of RSUs awarded will satisfy the Service-Based Requirement in equal monthly installments of [ ]% through the [ ] anniversary of the Vesting Commencement Date, subject to the Participant's Continuous Service on each such date, such that if the Participant's Continuous Service remains uninterrupted through the fourth anniversary of the Vesting Commencement Date, all of the RSUs awarded under this Award will have satisfied the Service-Based Requirement. For purposes of calculating the number of shares which have satisfied the Service-Based Requirement for any particular period, such number shall be equal to the total number of RSUs granted under this Award which have satisfied the Service-Based Requirement as of the end of such particular period less the number of RSU's granted under this Award which had previously satisfied the Service-Based Requirements as of the start of such particular period (rounding down to the nearest whole RSU).

Settlement: If an RSU vests as provided for above, then the Company will deliver one share of Common Stock (or its cash equivalent, at the discretion of the Company) for each Vested RSU. The shares will be issued in accordance with the issuance schedule set forth in Section 6 of the Award Agreement.

Additional Terms/Acknowledgements: The undersigned Participant acknowledges receipt of, and understands and agrees to, this Restricted Stock Unit Grant Notice, the Award Agreement and the Plan. Participant further acknowledges that as of the Date of Grant, this Restricted Stock Unit Grant Notice, the Award Agreement and the Plan set forth the entire understanding between Participant and the Company regarding the Award and supersedes all prior oral and written agreements, promises and/or representations on that subject, with the exception of (i) restricted stock units or other stock awards previously granted and delivered to Participant, (ii) any compensation recovery policy that is adopted by the Company or is otherwise required by applicable law and (iii) any written employment or severance arrangement that would provide for vesting acceleration of this Award upon the terms and conditions set forth therein.

Notices may be delivered to the Participant by electronic transmission by email and in such instance, such notices shall be sent to the electronic mail address set forth below the Participant's signature or to such other electronic mail address as shall be designated by the Participant in a written notice sent to the Company.

This consent applies to any and all notices required to be given to the Participant for any purposes relating to this Award, Participant's RSU or any Common Stock issuable upon vesting of the RSU.

[signature page follows]

By accepting this Award, the undersigned Participant acknowledges having received and read this Restricted Stock Unit Grant Notice, the Award Agreement and the Plan and agrees to all of the terms and conditions set forth in these documents. Participant consents to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

LIQUIDIA TECHNOLOGIES, INC.	**PARTICIPANT:**
By: _____ Signature	_____ Signature
Title: _____	Date: _____
Date: _____	Designated Email Address:

ATTACHMENTS: Restricted Stock Unit Agreement, 2016 Equity Incentive Plan

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LIQUIDIA TECHNOLOGIES, INC.
2016 EQUITY INCENTIVE PLAN

RESTRICTED STOCK UNIT AGREEMENT

Pursuant to the Restricted Stock Unit Grant Notice (the "***Grant Notice***") and this Restricted Stock Unit Agreement (the "***Agreement***") and in consideration of your services, Liquidia Technologies, Inc. (the "***Company***") has awarded you a Restricted Stock Unit Award (the "***Award***") under its 2016 Equity Incentive Plan (the "***Plan***") for the number of restricted stock units set forth on the Grant Notice. Capitalized terms not explicitly defined in this Agreement will have the same meanings given to them in the Plan or the Grant Notice, as applicable. Except as otherwise explicitly provided herein, in the event of any conflict between the terms in this Agreement and the Plan, the terms of the Plan will control.

The details of your Award, in addition to those set forth in the Grant Notice and the Plan, are as follows.

1. GRANT OF THE AWARD. This Award represents your right to be issued on a future date (as described below) the number of shares of Common Stock that is equal to the number of restricted stock units indicated in the Grant Notice (the "***RSUs***"). As of the Date of Grant, the Company will credit to a bookkeeping account maintained by the Company for your benefit (the "***Account***") the number of RSUs subject to the Award. This Award was granted in consideration of your services to the Company. Except as otherwise provided herein, you will not be required to make any payment to the Company (other than past and future services to the Company) with respect to your receipt of the Award, the vesting of the RSUs or the delivery of the Common Stock to be issued in respect of the Award. Notwithstanding the foregoing, the Company reserves the right to issue you the cash equivalent of Common Stock, in part or in full satisfaction of the delivery of Common Stock upon vesting of your RSUs, and, to the extent applicable, references in this Agreement and the Grant Notice to Common Stock issuable in connection with your RSUs will include the potential issuance of its cash equivalent pursuant to such right.

2. VESTING. Subject to the limitations contained herein, your Award will vest, if at all, in accordance with the vesting schedule provided in the Grant Notice.

3. NUMBER OF RSUS AND SHARES OF COMMON STOCK.

(a) The number of RSUs subject to your Award may be adjusted from time to time for Capitalization Adjustments, as provided in the Plan.

(b) Any additional RSUs, shares, cash or other property that become subject to the Award pursuant to this Section 3, if any, will be subject, in a manner determined by the Board, to the same forfeiture restrictions, restrictions on transferability, and time and manner of delivery as applicable to the other RSUs covered by your Award.

(c) Notwithstanding the provisions of this Section 3, no fractional shares or rights for fractional shares of Common Stock will be created pursuant to this Section 3. The Board will, in its discretion, determine an equivalent benefit for any fractional shares or fractional shares that might be created by the adjustments referred to in this Section 3.

4. SECURITIES LAW COMPLIANCE. You may not be issued any shares of Common Stock in respect of your Award unless either (i) the shares are registered under the Securities Act; or (ii) the Company has determined that such issuance would be exempt from the registration requirements of the Securities Act. Your Award also must comply with other applicable laws and regulations governing the Award, and you will not receive such shares if the Company determines that such receipt would not be in material compliance with such laws and regulations. To the extent the Company is unable to issue shares of Common Stock pursuant to this Section 4, the Company may issue you the cash equivalent of such Common Stock as provided in Section 6(a).

5. TRANSFER RESTRICTIONS. Your Award is not transferable, except by will or by the laws of descent and distribution. In addition to any other limitation on transfer created by applicable securities laws, you agree not to assign, hypothecate, donate, encumber or otherwise dispose of any interest in any of the shares of Common Stock subject to the Award until the shares are issued to you in accordance with Section 6 of this Agreement. After the shares have been issued to you, you cannot assign, hypothecate, donate, encumber or otherwise dispose of any interest in such shares except in compliance with the Company's Bylaws or any other agreement required to be entered into by you and provided that any such actions are in compliance with the provisions herein, any applicable Company policies (including, but not limited to, insider trading and window period policies) and applicable securities laws. Notwithstanding the foregoing, by delivering written notice to the Company, in a form satisfactory to the Company, you may designate a third party who, in the event of your death, will thereafter be entitled to receive any distribution of Common Stock to which you were entitled at the time of your death pursuant to this Agreement.

6. DATE OF ISSUANCE.

(a) Subject to the satisfaction of the Withholding Taxes set forth in Section 10 of this Agreement, the Company will deliver to you a number of shares of Common Stock equal to the number of vested RSUs subject to your Award, including any additional RSUs received pursuant to Section 3 above that relate to those vested RSUs, on the applicable vesting date. However, if a scheduled delivery date falls on a date that is not a business day, such delivery date will instead fall on the next following business day. Notwithstanding the foregoing, to the extent applicable at a vesting date when shares are registered under the Securities Act, in the event that (i) any shares covered by your Award are scheduled to be delivered on a day (the "***Original Distribution Date***") that does not occur: (A) during an open "window period" applicable to you under the Company's policy permitting officers, directors and other designated individuals to sell shares only during certain "window"

periods, in effect from time to time (the "***Policy***"), (B) on a day on which you are permitted to sell shares of Common Stock pursuant to a written plan that meets the requirements of Rule 10b5-1 under the Exchange Act, as determined by the Company in accordance with the Policy, or (C) on a date when you are otherwise permitted to sell shares of Common Stock on the open market, and (ii) the Company elects not to satisfy its obligations for

Tax-Related Items (as defined in Section 10) by withholding shares from your distribution or withholding from other compensation otherwise payable to you by the Company, then such shares will not be delivered on such Original Distribution Date and will instead be delivered on the first business day of the next occurring open "window period" applicable to you pursuant to such Policy (regardless of whether you are still providing Continuous Service at such time) or the next business day when you are not prohibited from selling shares of Common Stock in the open market, but in no event later than the later of (i) the fifteenth (15th) day of the third month following the end of the calendar year in which the applicable shares covered by the Award vest or (ii) the fifteenth (15th) day of the third month following the end of the Company's taxable year in which the applicable shares covered by the Award vest (the "***Issuance Deadline***"). Delivery of the shares pursuant to the provisions of this Section 6(a) is intended to comply with the requirements for the short-term deferral exemption available under Treasury Regulations Section 1.409A-1(b)(4) and will be construed and administered in such manner. The form of such delivery of the shares (e.g., a stock certificate or electronic entry evidencing such shares) will be determined by the Company.

(b) If the Company elects to issue you cash in part or in full satisfaction of the shares of Common Stock issuable upon vesting of your RSUs, then the foregoing provisions of this Section 6(a) will not apply and such cash will be paid to you in a lump sum at any time on or after the vesting date of your RSUs, but in no event later than the Issuance Deadline.

7. DIVIDENDS. You will receive no benefit or adjustment to your Award with respect to any cash dividend, stock dividend or other distribution that does not result from a Capitalization Adjustment as provided in the Plan; provided, however, that this sentence will not apply with respect to any shares of Common Stock that are delivered to you in connection with your Award after such shares have been delivered to you.

8. RESTRICTIVE LEGENDS. The shares issued in respect of your Award will be endorsed with appropriate legends determined by the Company.

9. AWARD NOT AN EMPLOYMENT OR SERVICE CONTRACT.

(a) Your Continuous Service with the Company or an Affiliate is not for any specified term and may be terminated by you or by the Company or an Affiliate at any time, for any reason, with or without cause and with or without notice. Nothing in this Agreement (including, but not limited to, the vesting of your Award pursuant to the schedule set forth in the Grant Notice herein or the issuance of the shares in respect of your Award), the Plan or any covenant of good faith and fair dealing that may be found implicit in this Agreement or the Plan will: (i) confer upon you any right to continue in the employ of, or affiliation with, the Company or an Affiliate; (ii) constitute any promise or commitment by the Company or an Affiliate regarding the fact or nature of future positions, future work assignments, future compensation or any other term or condition of employment or affiliation; (iii) confer any right or benefit under this Agreement or the Plan unless such right or benefit has specifically accrued under the terms of this Agreement or Plan; or (iv) deprive the Company or an Affiliate of the right to terminate you at will and without regard to any future vesting opportunity that you may have.

(b) By accepting this Award, you acknowledge and agree that the right to continue vesting in the Award pursuant to the vesting schedule set forth in Section 2 and in the Grant Notice is earned only by continuing as an employee, director or consultant at the will of the Company or an Affiliate (not through the act of being hired, being granted this Award or any other award or benefit) and that the Company has the right to reorganize, sell, spin-out or otherwise restructure one or more of its businesses or Affiliates at any time or from time to time, as it deems appropriate (a "reorganization"). You further acknowledge and agree that such a reorganization could result in the termination of your Continuous Service, or the termination of Affiliate status of your employer and the loss of benefits available to you under this Agreement, including but not limited to, the termination of the right to continue vesting in the Award. You further acknowledge and agree that this Agreement, the Plan, the transactions contemplated hereunder and the vesting schedule set forth in the Grant Notice or any covenant of good faith and fair dealing that may be found implicit in any of them do not constitute an express or implied promise of continued engagement as an employee or consultant with the Company or an Affiliate for the term of this Agreement, for any period, or at all, and will not interfere in any way with your right or the right of the Company or an Affiliate to terminate your Continuous Service at any time, with or without cause and with or without notice.

(c) Your Award is made at the discretion of the Company and the Plan may be suspended or terminated by the Company at any time. The grant of an Award in one year or at one time does not in any way entitle you to an Award in the future. The Plan is wholly discretionary and is not to be considered part of your normal or expected compensation subject to severance, resignation, redundancy or similar compensation. The value of your Award is an extraordinary item of compensation which is outside the scope of your service contract (if any).

10. RESPONSIBILITY FOR TAXES.

(a) On or before the time you receive a distribution of the shares of Common Stock underlying the RSUs or a cash payment, or at any time thereafter as requested by the Company, you hereby authorize any required withholding from the Common Stock issuable to you or the cash payment and/or otherwise agrees to make adequate provision in cash for any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or any Affiliate that arise in connection with the Award (the "***Withholding Taxes***"). Subject to Section 10(d) of this Agreement, if applicable, and notwithstanding any other provision of this Section, the Company may, in its sole discretion, satisfy all or any portion of the Withholding Taxes obligation relating to the Award by any of the following means or by a combination of such means: (i) withholding from any compensation otherwise payable to you by the Company; (ii) causing you to tender a cash payment; (iii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to you in connection with the RSUs with a Fair Market Value (measured as of the date shares of Common Stock are issued pursuant to Section 6) equal to the amount of such Withholding Taxes; *provided, however*, that the number of such shares of Common Stock so withheld shall not exceed the amount necessary to satisfy the Company's required tax withholding obligations using the minimum statutory withholding rates for federal, state, local and foreign tax purposes, including payroll taxes, that are applicable to supplemental taxable income (or such greater amount permitted under FASB Accounting Standards Codification Topic 718, Compensation —Stock Compensation, for equity-classified awards); or (iv) withholding cash from the Award settled in cash.

(b) Unless the tax withholding obligations of the Company and/or any Affiliate are satisfied, the Company shall have no obligation to deliver to you any Common Stock or make a cash payment.

(c) In the event the Company's obligation to withhold arises prior to the delivery to you of Common Stock or the cash payment or it is determined after the delivery of Common Stock or the cash payment to you that the amount of the Company's withholding obligation was greater than the amount withheld by the Company, you agree to indemnify and hold the Company harmless from any failure by the Company to withhold the proper amount.

(d) If specified in the Grant Notice, you may direct the Company to withhold shares of Common Stock with a Fair Market Value (measured as of the date shares of Common Stock are issued pursuant to Section 6) equal to the amount of such Withholding Taxes; *provided, however*, that the number of such shares of Common Stock so withheld shall not exceed the amount necessary to satisfy the Company's required tax withholding obligations using the minimum statutory withholding rates for federal, state, local and foreign tax purposes, including payroll taxes, that are applicable to supplemental taxable income.

11. TRANSFER RESTRICTIONS. In addition to any other limitation on transfer created by applicable laws and the restrictions in Section 10, as applicable, you will not sell, assign, hypothecate, donate, encumber or otherwise dispose of all or any part of the shares subject to your Award or any interest in such shares except in compliance with this Agreement (including without limitation Sections 8 and 13), the Company's bylaws and applicable securities laws.

12. DATA TRANSFER. You explicitly and unambiguously consent to the collection, use and transfer, in electronic or other form, of your personal data as described in this document by and among, as applicable, your employer, and the Company and its Affiliates for the exclusive purpose of implementing, administering and managing your participation in the Plan. You understand that the Company, its Affiliates and your employer hold certain personal information about you, including, but not limited to, name, home address and telephone number, date of birth, social security number (or other identification number), salary, nationality, job title, any shares of stock or directorships held in the Company, details of all options or any other entitlement to shares of stock awarded, canceled, purchased, exercised, vested, unvested or outstanding in your favor for the purpose of implementing, managing and administering the Plan ("***Data***"). You understand that the Data may be transferred to any third parties assisting in the implementation, administration and management of the Plan, that these recipients may be located in your country or elsewhere and that the recipient country may have different data privacy laws and protections than your country. You may request a list with the names and addresses of any potential recipients of the Data by contacting the Stock Plan Administrator at the Company (the "***Stock Plan Administrator***"). You authorize the recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing your participation in the Plan, including any requisite transfer of such Data, as may be required to a broker or other third party with whom you may elect to deposit any shares of Common Stock acquired upon the vesting of the Award. You understand that Data will be held only as long as is necessary to implement, administer and manage participation in the Plan. You may, at any time, view Data, request additional information about the storage and processing of the Data, require any necessary amendments

to the Data or refuse or withdraw the consents herein, in any case without cost, by contacting the Stock Plan Administrator in writing. You understand that refusing or withdrawing consent may affect your ability to participate in the Plan. For more information on the consequences of refusing to consent or withdrawing consent, you may contact the Stock Plan Administrator.

13. UNSECURED OBLIGATION. Your Award is unfunded, and as a holder of a vested Award, you will be considered an unsecured creditor of the Company with respect to the Company's obligation, if any, to issue shares pursuant to this Agreement. You will not have voting or any other rights as a stockholder of the Company with respect to the shares to be issued pursuant to this Agreement until such shares are issued to you pursuant to Section 6 of this Agreement. Upon such issuance, you will obtain full voting and other rights as a stockholder of the Company. Nothing contained in this Agreement, and no action taken pursuant to its provisions, will create or be construed to create a trust of any kind or a fiduciary relationship between you and the Company or any other person.

14. NOTICES. Any notices provided for in your Award or the Plan will be given in writing (including electronically) and will be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. Notwithstanding the foregoing, the Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this Award by electronic means or to request your consent to participate in the Plan by electronic means. By accepting this Award you consent to receive such documents by electronic delivery and, if requested, to agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

15. LANGUAGE. If you have received this Agreement, or any other document related to this Award and/or the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

16. INSIDER TRADING RESTRICTIONS/MARKET ABUSE LAWS. You acknowledge that, depending on your country, you may be subject to insider trading restrictions and/or market abuse laws, which may affect your ability to acquire or sell the shares of Common Stock or rights to the shares of Common Stock under the Plan during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in your country or any country in which the Company's shares of Common Stock are registered or listed). Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You acknowledge that it is your responsibility to comply with any applicable restrictions, and you are advised to speak to your personal advisor on this matter.

17. IMPOSITION OF OTHER REQUIREMENTS. The Company reserves the right to impose other requirements on your participation in the Plan, on any shares of Common Stock

acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal administrative reasons, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

18. MISCELLANEOUS.

(a) The rights and obligations of the Company under your Award may be transferred to any one or more persons or entities, and all covenants and agreements hereunder will inure to the benefit of, and be enforceable by the Company's successors and assigns. Your rights and obligations under your Award may only be assigned with the prior written consent of the Company.

(b) You agree upon request to execute any further documents or instruments necessary or desirable in the sole determination of the Company to carry out the purposes or intent of your Award.

(c) You acknowledge and agree that you have reviewed your Award in its entirety, have had an opportunity to obtain the advice of counsel prior to executing and accepting your Award, and fully understand all provisions of your Award.

(d) This Agreement will be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

(e) All obligations of the Company under the Plan and this Agreement will be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

19. GOVERNING PLAN DOCUMENT. Your Award is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your Award, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. Except as expressly provided in this Agreement, in the event of any conflict between the provisions of your Award and those of the Plan, the provisions of the Plan will control. In addition, to the extent applicable, your Award (and any compensation paid or shares issued under your Award) is subject to recoupment in accordance with The Dodd—Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company and any compensation recovery policy otherwise required by applicable law.

20. SEVERABILITY. If all or any part of this Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Agreement (or part of such a Section) so declared to be unlawful or invalid will, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

21. EFFECT ON OTHER EMPLOYEE BENEFIT PLANS. The value of the Award subject to this Agreement will not be included as compensation, earnings, salaries, or other similar terms used when calculating the Employee's benefits under any employee benefit plan sponsored by the Company or any Affiliate, except as such plan otherwise expressly provides. The Company expressly reserves its rights to amend, modify, or terminate any of the Company's or any Affiliate's employee benefit plans.

22. AMENDMENT. This Agreement may not be modified, amended or terminated except by an instrument in writing, signed by you and by a duly authorized representative of the Company. Notwithstanding the foregoing, this Agreement may be amended solely by the Board by a writing which specifically states that it is amending this Agreement, so long as a copy of such amendment is delivered to you, and provided that no such amendment adversely affecting your rights hereunder may be made without your written consent. Without limiting the foregoing, the Board reserves the right to change, by written notice to you, the provisions of this Agreement in any way it may deem necessary or advisable to carry out the purpose of the grant as a result of any change in applicable laws or regulations or any future law, regulation, ruling, or judicial decision, provided that any such change will be applicable only to rights relating to that portion of the Award which is then subject to restrictions as provided herein.

23. NO OBLIGATION TO MINIMIZE TAXES. The Company has no duty or obligation to minimize the tax consequences to you of this Award and will not be liable to you for any adverse tax consequences to you arising in connection with this Award. You are hereby advised to consult with your own personal tax, financial and/or legal advisors regarding the tax consequences of this Award and by signing the Grant Notice, you have agreed that you have done so or knowingly and voluntarily declined to do so.

24. COMPLIANCE WITH SECTION 409A OF THE CODE. This Award is intended to comply with the "short-term deferral" rule set forth in Treasury Regulation Section 1.409A-1(b)(4). Notwithstanding the foregoing, if it is determined that the Award fails to satisfy the requirements of the short-term deferral rule and is otherwise deferred compensation subject to Section 409A of the Code and any state law of similar effect (collectively, "***Section 409A***"), and if you are a "Specified Employee" (within the meaning set forth Section 409A(a)(2)(B)(i) of the Code) as of the date of your separation from service (within the meaning of Treasury Regulation Section 1.409A-1(h)), then the issuance of any shares that would otherwise be made upon the date of the separation from service or within the first six months thereafter will not be made on the originally scheduled date(s) and will instead be issued in a lump sum on the date that is six months and one day after the date of the separation from service, with the balance of the shares issued thereafter in accordance with the original vesting and issuance schedule set forth above, but if and only if such delay in the issuance of the shares is necessary to avoid the imposition of taxation on you in respect of the shares under Section 409A of the Code. Each installment of shares that vests is intended to constitute a "separate payment" for purposes of Treasury Regulation Section 1.409A-2(b)(2).

* * *

This Agreement will be deemed to be signed by you upon the signing by you of the Grant Notice to which it is attached.

LIQUIDIA TECHNOLOGIES, INC.

STOCK OPTION GRANT NOTICE
(2016 EQUITY INCENTIVE PLAN)

LIQUIDIA TECHNOLOGIES, INC. (the "***Company***"), pursuant to its 2016 Equity Incentive Plan, as amended (the "***Plan***"), hereby grants to Optionholder an option to purchase the number of shares of the Company's Common Stock set forth below. This option is subject to all of the terms and conditions as set forth in this notice, in the Option Agreement, the Plan and the Notice of Exercise, all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Option Agreement will have the same definitions as in the Plan or the Option Agreement. If there is any conflict between the terms in this notice and the Plan, the terms of the Plan will control.

Optionholder:	
Date of Grant:	
Vesting Commencement Date:	
Number of Shares Subject to Option:	
Exercise Price (Per Share):	$
Total Exercise Price:	$
Expiration Date:	

Type of Grant: o Incentive Stock Option o Nonstatutory Stock Option

Exercise Schedule: o Same as Vesting Schedule o Early Exercise Permitted

Vesting Schedule (for new hire):

Payment: By one or a combination of the following items (described in the Option Agreement):

- o By cash, check, bank draft or money order payable to the Company
- o Pursuant to a Regulation T Program if the shares are publicly traded
- o By delivery of already-owned shares if the shares are publicly traded
- o Subject to such limits as the Board may impose from time to time, by a "net exercise" arrangement

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Additional Terms/Acknowledgements: Optionholder acknowledges receipt of, and understands and agrees to, this Stock Option Grant Notice, the Option Agreement and the Plan. Optionholder acknowledges and agrees that this Stock Option Grant Notice and the Option Agreement may not be modified, amended or revised except as provided in the Plan. Optionholder further acknowledges that as of the Date of Grant, this Stock Option Grant Notice, the Option Agreement, and the Plan set forth the entire understanding between Optionholder and the Company regarding this option award and supersede all prior oral and written agreements, promises and/or representations on that subject with the exception of (i) options previously granted and delivered to Optionholder, and (ii) the following agreements only.

OTHER AGREEMENTS:

By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

LIQUIDIA TECHNOLOGIES, INC.	**[NAME]**
By: _____	_____
Signature	Signature
Title: _____	Date: _____
Date: _____	

ATTACHMENTS: Option Agreement, 2016 Equity Incentive Plan, as amended, and Notice of Exercise

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ATTACHMENT I

OPTION AGREEMENT

LIQUIDIA TECHNOLOGIES, INC.

2016 EQUITY INCENTIVE PLAN

OPTION AGREEMENT
(INCENTIVE STOCK OPTION OR NONSTATUTORY STOCK OPTION)

Pursuant to your Stock Option Grant Notice ("***Grant Notice***") and this Option Agreement, **LIQUIDIA TECHNOLOGIES, INC.** (the "***Company***") has granted you an option under its 2016 Equity Incentive Plan (the "***Plan***") to purchase the number of shares of the Company's Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. The option is granted to you effective as of the date of grant set forth in the Grant Notice (the "***Date of Grant***"). If there is any conflict between the terms in this Option Agreement and the Plan, the terms of the Plan will control. Capitalized terms not explicitly defined in this Option Agreement or in the Grant Notice but defined in the Plan will have the same definitions as in the Plan.

The details of your option, in addition to those set forth in the Grant Notice and the Plan, are as follows:

1. VESTING. Your option will vest as provided in your Grant Notice. Vesting will cease upon the termination of your Continuous Service.

2. NUMBER OF SHARES AND EXERCISE PRICE. The number of shares of Common Stock subject to your option and your exercise price per share in your Grant Notice will be adjusted for Capitalization Adjustments.

3. EXERCISE RESTRICTION FOR NON-EXEMPT EMPLOYEES. If you are an Employee eligible for overtime compensation under the Fair Labor Standards Act of 1938, as amended (that is, a "***Non-Exempt Employee***"), and except as otherwise provided in the Plan, you may not exercise your option until you have completed at least six months of Continuous Service measured from the Date of Grant, even if you have already been an employee for more than six months. Consistent with the provisions of the Worker Economic Opportunity Act, you may exercise your option as to any vested portion prior to such six month anniversary in the case of (i) your death or disability, (ii) a Corporate Transaction in which your option is not assumed, continued or substituted, (iii) a Change in Control or (iv) your termination of Continuous Service on your "retirement" (as defined in the Company's benefit plans).

4. EXERCISE PRIOR TO VESTING ("EARLY EXERCISE"). If permitted in your Grant Notice (*i.e.*, the "Exercise Schedule" indicates "Early Exercise Permitted") and subject to the provisions of your option, you may elect at any time that is both (i) during the period of your Continuous Service and (ii) during the term of your option, to exercise all or part of your option, including the unvested portion of your option; *provided, however,* that:

(a) a partial exercise of your option will be deemed to cover first vested shares of Common Stock and then the earliest vesting installment of unvested shares of Common Stock;

(b) any shares of Common Stock so purchased from installments that have not vested as of the date of exercise will be subject to the purchase option in favor of the Company as described in the Company's form of Early Exercise Stock Purchase Agreement;

(c) you will enter into the Company's form of Early Exercise Stock Purchase Agreement with a vesting schedule that will result in the same vesting as if no early exercise had occurred; and

(d) if your option is an Incentive Stock Option, then, to the extent that the aggregate Fair Market Value (determined at the Date of Grant) of the shares of Common Stock with respect to which your option plus all other Incentive Stock Options you hold are exercisable for the first time by you during any calendar year (under all plans of the Company and its Affiliates) exceeds $100,000, your option(s) or portions thereof that exceed such limit (according to the order in which they were granted) will be treated as Nonstatutory Stock Options.

5. METHOD OF PAYMENT. You must pay the full amount of the exercise price for the shares you wish to exercise. You may pay the exercise price in cash or by check, bank draft or money order payable to the Company or in any other manner ***permitted by your Grant Notice,*** which may include one or more of the following:

(a) Provided that at the time of exercise the Common Stock is publicly traded, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds. This manner of payment is also known as a "broker-assisted exercise", "same day sale", or "sell to cover".

(b) Provided that at the time of exercise the Common Stock is publicly traded, by delivery to the Company (either by actual delivery or attestation) of already-owned shares of Common Stock that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time you exercise your option, will include delivery to the Company of your attestation of ownership of such shares of Common Stock in a form approved by the Company. You may not exercise your option by delivery to the Company of Common Stock if doing so would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock.

(c) Subject to such limits as the Board may impose from time to time, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price. You must pay any remaining balance of the aggregate exercise price not satisfied by the "net exercise" in cash or other permitted form of payment. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations.

6. WHOLE SHARES. You may exercise your option only for whole shares of Common Stock.

7. SECURITIES LAW COMPLIANCE. In no event may you exercise your option unless the shares of Common Stock issuable upon exercise are then registered under the Securities Act or, if not registered, the Company has determined that your exercise and the issuance of the shares would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with all other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such

laws and regulations (including any restrictions on exercise required for compliance with Treas. Reg. 1.401(k)-1(d)(3), if applicable).

8. TERM. You may not exercise your option before the Date of Grant or after the expiration of the option's term. The term of your option expires, subject to the provisions of Section 5(h) of the Plan, upon the earliest of the following:

(a) immediately upon the termination of your Continuous Service for Cause;

(b) three months after the termination of your Continuous Service for any reason other than Cause, your Disability or your death (except as otherwise provided in Section 8(d) below); *provided, however,* that if during any part of such three month period your option is not exercisable solely because of the condition set forth in the section above relating to "Securities Law Compliance," your option will not expire until the earlier of the Expiration Date or until it has been exercisable for an aggregate period of three months after the termination of your Continuous Service; *provided further,* that if (i) you are a Non-Exempt Employee, (ii) your Continuous Service terminates within six months after the Date of Grant, and (iii) you have vested in a portion of your option at the time of your termination of Continuous Service, your option will not expire until the earlier of (x) the later of (A) the date that is seven months after the Date of Grant, and (B) the date that is three months after the termination of your Continuous Service, and (y) the Expiration Date;

(c) 12 months after the termination of your Continuous Service due to your Disability (except as otherwise provided in Section 8(d)) below;

(d) 18 months after your death if you die either during your Continuous Service or within three (3) months after your Continuous Service terminates for any reason other than Cause;

(e) the Expiration Date indicated in your Grant Notice; or

(f) the day before the 10th anniversary of the Date of Grant.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the Date of Grant and ending on the day three months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or Disability. The Company has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three months after the date your employment with the Company or an Affiliate terminates.

9. EXERCISE.

(a) You may exercise the vested portion of your option (and the unvested portion of your option if your Grant Notice so permits) during its term by (i) delivering a Notice of Exercise (in a form designated by the Company) or completing such other documents and/or procedures designated by the Company for exercise and (ii) paying the exercise price and any applicable withholding taxes to the Company's Secretary, stock plan administrator, or such other person as the Company may designate, together with such additional documents as the Company may then require.

(b) By exercising your option you agree that, as a condition to any exercise of your option, the Company may require you to enter into an arrangement providing for the payment by you to the Company of any tax withholding obligation of the Company arising by reason of (i) the exercise of your option, (ii) the lapse of any substantial risk of forfeiture to which the shares of Common Stock are subject at the time of exercise, or (iii) the disposition of shares of Common Stock acquired upon such exercise.

(c) If your option is an Incentive Stock Option, by exercising your option you agree that you will notify the Company in writing within 15 days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two years after the Date of Grant or within one year after such shares of Common Stock are transferred upon exercise of your option.

(d) By exercising your option you agree that you will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company held by you, for a period of 180 days following the effective date of a registration statement of the Company filed under the Securities Act or such longer period as the underwriters or the Company will request to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation (the "***Lock-Up Period***"); *provided, however*, that nothing contained in this section will prevent the exercise of a repurchase option, if any, in

favor of the Company during the Lock-Up Period. You further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. You also agree that any transferee of any shares of Common Stock (or other securities) of the Company held by you will be bound by this Section 9(d). The underwriters of the Company's stock are intended third party beneficiaries of this Section 9(d) and will have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

10. TRANSFERABILITY. Except as otherwise provided in this Section 10, your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you.

(a) Certain Trusts. Upon receiving written permission from the Board or its duly authorized designee, you may transfer your option to a trust if you are considered to be the sole beneficial owner (determined under Section 671 of the Code and applicable state law) while the option is held in the trust. You and the trustee must enter into transfer and other agreements required by the Company.

(b) Domestic Relations Orders. Upon receiving written permission from the Board or its duly authorized designee, and provided that you and the designated transferee enter into transfer and other agreements required by the Company, you may transfer your option pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulation 1.421-1(b)(2) that contains the information required by the Company to effectuate the transfer. You are encouraged to discuss the proposed terms of any division of this option with the Company prior to finalizing the domestic relations order or marital settlement agreement to help ensure the required information is contained within the domestic relations order or marital settlement agreement. If this option is an Incentive Stock Option, this option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(c) Beneficiary Designation. Upon receiving written permission from the Board or its duly authorized designee, you may, by delivering written notice to the Company, in a form approved by the Company and any broker designated by the Company to handle option exercises, designate a third party who, on your death, will thereafter be entitled to exercise this option and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, your executor or administrator of your estate will be entitled to exercise this option and receive, on behalf of your estate, the Common Stock or other consideration resulting from such exercise.

11. RIGHT OF FIRST REFUSAL. Shares of Common Stock that you acquire upon exercise of your option are subject to any right of first refusal that may be described in the Company's bylaws in effect at such time the Company elects to exercise its right; *provided, however,* that if there is no right of first refusal described in the Company's bylaws at such time, the right of first refusal described below will apply. The Company's right of first refusal will expire on the first date upon which any security of the Company is listed (or approved for listing) upon notice of issuance on a national securities exchange or quotation system (the "***Listing Date***").

(a) Prior to the Listing Date, you may not validly Transfer (as defined below) any shares of Common Stock acquired upon exercise of your option, or any interest in such shares, unless such Transfer is made in compliance with the following provisions:

(i) Before there can be a valid Transfer of any shares of Common Stock or any interest therein, the record holder of the shares of Common Stock to be transferred (the "***Offered Shares***") will give written notice (by registered or certified mail) to the Company. Such notice will specify the identity of the proposed transferee, the cash price offered for the Offered Shares by the proposed transferee (or, if the proposed Transfer is one in which the holder will not receive cash, such as an involuntary transfer, gift, donation or pledge, the holder will state that no purchase price is being proposed), and the other terms and conditions of the proposed Transfer. The date such notice is mailed will be hereinafter referred to as the "***Notice Date***" and the record holder of the Offered Shares will be hereinafter referred to as the "***Offeror***." If, from time to time, there is any stock dividend, stock split or other change in the character or amount of any of the outstanding Common Stock which is subject to the provisions of your option, then in such event any and all new, substituted or additional securities to which you are entitled by reason of your ownership of the shares of Common Stock acquired upon exercise of your option will be immediately subject to the Company's Right of First Refusal (as defined below) with the same force and effect as the shares subject to the Right of First Refusal immediately before such event.

(ii) For a period of 30 calendar days after the Notice Date, or such longer period as may be required to avoid the classification of your option as a liability for financial accounting purposes, the Company will have the option to purchase all (but not less than all) of the Offered Shares at the purchase price and on the terms set forth in Section 11(a)(iii) (the Company's "***Right of First Refusal***"). In the event that the proposed Transfer is one involving no payment of a purchase price, the purchase price will be deemed to be the Fair Market Value of the Offered Shares as determined in good faith by the Board in its discretion. The Company may exercise its Right of First Refusal by mailing (by registered or certified mail) written notice of exercise of its Right of First Refusal to the Offeror prior to the end of said 30 days (including any extension required to avoid classification of the option as a liability for financial accounting purposes).

(iii) The price at which the Company may purchase the Offered Shares pursuant to the exercise of its Right of First Refusal will be the cash price offered for the Offered Shares by the proposed transferee (as set forth in the notice required under Section 11(a)(i)), or the Fair Market Value as determined by the Board in the event no purchase price is involved. To the extent consideration

other than cash is offered by the proposed transferee, the Company will not be required to pay any additional amounts to the Offeror other than the cash price offered (or the Fair Market Value, if applicable). The Company's notice of exercise of its Right of First Refusal will be accompanied by full payment for the Offered Shares and, upon such payment by the Company, the Company will acquire full right, title and interest to all of the Offered Shares.

(iv) If, and only if, the option given pursuant to Section 11(a)(ii) is not exercised, the Transfer proposed in the notice given pursuant to Section 11(a)(i) may take place; *provided, however*, that such Transfer must, in all respects, be exactly as proposed in said notice except that such Transfer may not take place either before the 10th calendar day after the expiration of the 30 day option exercise period or after the ninetieth 90th calendar day after the expiration of the 30 day option exercise period, and if such Transfer has not taken place prior to said 90th day, such Transfer may not take place without once again complying with this Section 11(a). The option exercise periods in this Section 11(a)(iv) will be adjusted to include any extension required to avoid the classification of your option as a liability for financial accounting purposes.

(b) As used in this Section 11, the term "***Transfer***" means any sale, encumbrance, pledge, gift or other form of disposition or transfer of shares of Common Stock or any legal or equitable interest therein; *provided, however*, that the term Transfer does not include a transfer of such shares or interests by will or intestacy to your Immediate Family (as defined below). In such case, the transferee or other recipient will receive and hold the shares of Common Stock so transferred subject to the provisions of this Section, and there will be no further transfer of such shares except in accordance with the terms of this Section 11. As used herein, the term "***Immediate Family***" will mean your spouse, the lineal descendant or antecedent, father, mother, brother or sister, child, adopted child, grandchild or adopted grandchild of you or your spouse, or the spouse of any child, adopted child, grandchild or adopted grandchild of you or your spouse.

(c) None of the shares of Common Stock purchased on exercise of your option will be transferred on the Company's books nor will the Company recognize any such Transfer of any such shares or any interest therein unless and until all applicable provisions of this Section 11 have been complied with in all respects. The certificates of stock evidencing shares of Common Stock purchased on exercise of your option will bear an appropriate legend referring to the transfer restrictions imposed by this Section 11.

(d) To ensure that the shares subject to the Company's Right of First Refusal will be available for repurchase by the Company, the Company may require you to deposit the certificates evidencing the shares that you purchase upon exercise of your option with an escrow agent designated by the Company under the terms and conditions of an escrow agreement approved by the Company. If the Company does not require such deposit as a condition of exercise of your option, the Company reserves the right at any time to require you to so deposit the certificates in escrow. As soon as practicable after the expiration of the Company's Right of First Refusal, the agent will deliver to you the shares and any other property no longer subject to such restriction. In the event the shares and any other property held in escrow are subject to the Company's exercise of its Right of First Refusal, the notices required to be given to you will be given to the escrow agent, and any payment required to be given to you will be given to the escrow agent. Within 30 days after payment by the Company for the Offered Shares, the escrow agent will deliver the Offered Shares that the Company has repurchased to the Company and will deliver the payment received from the Company to you.

12. OPTION NOT A SERVICE CONTRACT. Your option is not an employment or service contract, and nothing in your option will be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to

continue your employment. In addition, nothing in your option will obligate the Company or an Affiliate, their respective stockholders, boards of directors, officers or employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

13. WITHHOLDING OBLIGATIONS.

(a) At the time you exercise your option, in whole or in part, and at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by means of a "same day sale" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise of your option.

(b) If this option is a Nonstatutory Stock Option, then upon your request and subject to approval by the Company, and compliance with any applicable legal conditions or restrictions, the Company may withhold from fully vested shares of Common Stock otherwise issuable to you upon the exercise of your option a number of whole shares of Common Stock having a Fair Market Value, determined by the Company as of the date of exercise, not in excess of the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid classification of your option as a liability for financial accounting purposes). If the date of determination of any tax withholding obligation is deferred to a date later than the date of exercise of your option, share withholding pursuant to the preceding sentence shall not be permitted unless you make a proper and timely election under Section 83(b) of the Code, covering the aggregate number of shares of Common Stock acquired upon such exercise with respect to which such determination is otherwise deferred, to accelerate the determination of such tax withholding obligation to the date of exercise of your option. Notwithstanding the filing of such election, shares of Common Stock shall be withheld solely from fully vested shares of Common Stock determined as of the date of exercise of your option that are otherwise issuable to you upon such exercise. Any adverse consequences to you arising in connection with such share withholding procedure shall be your sole responsibility.

(c) You may not exercise your option unless the tax withholding obligations of the Company and/or any Affiliate are satisfied. Accordingly, you may not be able to exercise your option when desired even though your option is vested, and the Company will have no obligation to issue a certificate for such shares of Common Stock or release such shares of Common Stock from any escrow provided for herein, if applicable, unless such obligations are satisfied.

14. TAX CONSEQUENCES. You hereby agree that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes your tax liabilities. You will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from your option or your other compensation. In particular, you acknowledge that this option is exempt from Section 409A of the Code only if the exercise price per share specified in the Grant Notice is at least equal to the "fair market value" per share of the Common Stock on the Date of Grant and there is no other impermissible deferral of compensation associated with the option. Because the Common Stock is not traded on an established securities market, the Fair Market Value is determined by the Board, perhaps in consultation with an independent valuation firm retained by the Company. You acknowledge that there is no guarantee that the Internal Revenue Service will agree with the valuation as determined by the Board, and you will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that the valuation determined by the Board is less than the "fair market value" as subsequently determined by the Internal Revenue Service.

15. NOTICES. Any notices provided for in your option or the Plan will be given in writing (including electronically) and will be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. The Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this option by electronic means or to request your consent to participate in the Plan by electronic means. By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

16. GOVERNING PLAN DOCUMENT. Your option is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your option, and is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. If there is any conflict between the provisions of your option and those of the Plan, the provisions of the Plan will control.

ATTACHMENT II

2016 EQUITY INCENTIVE PLAN, AS AMENDED

ATTACHMENT III

NOTICE OF EXERCISE

LIQUIDIA TECHNOLOGIES, INC.
NOTICE OF EXERCISE

Liquidia Technologies, Inc.
419 Davis Dr.
Morrisville, North Carolina 27560

Date of Exercise:

This constitutes notice to **LIQUIDIA TECHNOLOGIES, INC.** (the "***Company***") under my stock option that I elect to purchase the below number of shares of Common Stock of the Company (the "***Shares***") for the price set forth below.

Type of option (check one):	**Incentive o**	**Nonstatutory o**
Stock option dated:		
Number of Shares as to which option is exercised:		
Certificates to be issued in name of:		
Total exercise price:	$	$
Cash payment delivered herewith:	$	$
Regulation T Program (cashless exercise(1))	$	$
Value of Shares delivered herewith(2):	$	$

By this exercise, I agree (i) to provide such additional documents as you may require pursuant to the terms of the 2016 Equity Incentive Plan, (ii) to provide for the payment by me to you (in the manner designated by you) of your withholding obligation, if any, relating to the exercise of this option, and (iii) if this exercise relates to an incentive stock option, to notify you in writing within 15 days after the date of any disposition of any of the Shares issued upon exercise of this option that occurs within two years after the date of grant of this option or within one year after such Shares are issued upon exercise of this option.

I hereby make the following certifications and representations with respect to the number of Shares listed above, which are being acquired by me for my own account upon exercise of the option as set forth above:

(1) Shares must meet the public trading requirements set forth in the option agreement.

(2) Shares must meet the public trading requirements set forth in the option. Shares must be valued in accordance with the terms of the option being exercised, and must be owned free and clear of any liens, claims, encumbrances or security interests. Certificates must be endorsed or accompanied by an executed assignment separate from certificate.

I acknowledge that the Shares have not been registered under the Securities Act of 1933, as amended (the "***Securities Act***"), and are deemed to constitute "restricted securities" under Rule 701 and Rule 144 promulgated under the Securities Act. I warrant and represent to the Company that I have no present intention of distributing or selling said Shares, except as permitted under the Securities Act and any applicable state securities laws.

I further acknowledge that I will not be able to resell the Shares for at least 90 days after the stock of the Company becomes publicly traded (*i.e.*, subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934) under Rule 701 and that more restrictive conditions apply to affiliates of the Company under Rule 144.

I further acknowledge that all certificates representing any of the Shares subject to the provisions of the option shall have endorsed thereon appropriate legends reflecting the foregoing limitations, as well as any legends reflecting restrictions pursuant to the Company's Articles of Incorporation, Bylaws and/or applicable securities laws.

I further agree that, if required by the Company (or a representative of the underwriters) in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, I will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company for a period of 180 days following the effective date of a registration statement of the Company filed under the Securities Act (or such longer period as the underwriters or the Company shall request to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation) (the "***Lock-Up Period***"). I further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such period.

Very truly yours,

_____

(Signature)

_____

Name (Please Print)

Address of Record:

Exhibit 10.4

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (this "Agreement") is made as of [ ] [ ], 2018, by and between Liquidia Technologies, Inc., a Delaware corporation (the "Corporation"), and [ ] ("Indemnitee"). Capitalized terms used, but not otherwise defined herein, shall have the meanings set forth in Section 1.

RECITALS

A. Highly competent and qualified persons have become more reluctant to serve corporations as directors, officers or in other capacities unless they are provided with adequate protection through insurance coverage or adequate indemnification against risks of claims and actions against them arising out of their service to and activities on behalf of the corporation.

B. The board of directors of the Corporation (the "Board") has determined that, in order to attract and retain competent and qualified individuals, the Corporation will seek to maintain on an ongoing basis, at its sole expense, directors' and officers' liability insurance to protect persons serving the Corporation and its subsidiaries from certain liabilities. However, as a result of changes in the marketplace for insurance it has become increasingly difficult to obtain directors' and officers' liability insurance on terms providing reasonable protection at reasonable cost. The uncertainties relating to directors' and officers' liability insurance have increased the difficulty of attracting and retaining such persons.

C. The Board has determined that the potential inability to attract and retain highly competent and qualified persons to serve the Corporation would be detrimental to the best interests of the Corporation and its stockholders and that the Corporation should act to assure such persons that there will be increased certainty of adequate protection against risks of claims and actions against them arising out of their service to and activities on behalf of the Corporation in the future.

D. The Board has determined that it is reasonable, prudent and necessary for the Corporation to contractually obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve or continue to serve the Corporation free from undue concern that they will not be so indemnified.

E. Indemnitee has agreed to serve the Corporation in an officer and/or director capacity provided that Indemnitee is provided the protections available under this Agreement, the Corporation's Amended and Restated Certificate of Incorporation (as amended, modified, supplemented, restated or amended and restated from time to time, the "Certificate of Incorporation"), the Corporation's Amended and Restated Bylaws (as amended and/or restated from time to time, the "Bylaws") and directors' and officers' liability insurance coverage that is adequate in the present circumstances.

F. This Agreement is a supplement to and in furtherance of any protections provided by the Certificate of Incorporation, the Bylaws and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder. In addition, Indemnitee will be entitled to indemnification pursuant to the Delaware General Corporation Law.

NOW THEREFORE, in consideration of the foregoing and the covenants, promises and representations set forth herein, and for other good and valuable consideration, including Indemnitee's agreement to serve as a director and/or officer of the Corporation after the date hereof, and intending to be legally bound hereby, the parties hereto agree as follows:

1. Certain Definitions for Purposes of this Agreement. The following terms as used in this Agreement shall have the meanings set forth below.

(a) "Change in Control" means:

(i) merger, consolidation or reorganization approved by the Corporation's stockholders, unless securities representing more than 50 percent of the total and combined voting power of the outstanding voting securities of the successor corporation are immediately thereafter beneficially owned, directly or indirectly, by the persons who beneficially owned the Corporation's outstanding voting securities immediately prior to such transaction;

(ii) The sale, transfer or other disposition of all or substantially all of the Corporation's assets as an entirety or substantially as an entirety, occurring within a 12-month period, and representing, at a minimum, not less than 50 percent of the total gross fair market value of all assets of the Corporation, to any person, entity, or group of persons acting in consort, other than a sale, transfer or disposition to: (A) a stockholder of the Corporation in exchange for or with respect to its stock; (B) an entity, 50 percent or more of the total value or voting power of which is owned, directly or indirectly, by the Corporation; (C) a person, or more than one person acting as a group, that owns, directly or indirectly, 50 percent or more of the total value or voting power of the outstanding stock of the Corporation; or (D) an entity, at least 50 percent of the total value or voting power of which is owned by a person described in (C); or

(iii) Any transaction or series of related transactions pursuant to which any person or any group of persons comprising a "group" within the meaning of Rule 13d-5(b)(1) under the Securities Exchange Act of 1934, as amended (other than the Corporation or a person that, prior to such transaction or series of related transactions, directly or indirectly controls, is controlled by or is under common control with, the Corporation) becomes directly or indirectly the beneficial owner (within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934, as amended) of securities possessing (or convertible into or exercisable for securities possessing) more than 50 percent of the total combined voting power of the Corporation's securities outstanding immediately after the consummation of such transaction or series of related transactions, whether such transaction involves a direct issuance from the Corporation or the acquisition of outstanding securities held by one or more of the Corporation's stockholders; or

(iv) A change in the composition of the Board over a period of 12 consecutive months or less such that a majority of the Board members ceases, by reason of one or more contested elections for Board membership, to be comprised of individuals whose election is endorsed by a majority of the members of the Board immediately before the date of election.

A transaction shall not constitute a Change in Control if its sole purpose is to change the state of the Corporation's incorporation or to create a holding company that will be owned in the same proportions by the persons who held the Corporation's securities immediately before such transaction.

(b) "Corporation" includes any domestic or foreign predecessor entity of the Corporation in a merger or other transaction in which the predecessor's existence ceased on consummation of the transaction.

(c) "Director" means an individual who is or was a director of the Corporation or an individual who, while a director of the Corporation, is or was serving at the Corporation's request as a director, officer, partner, trustee, employee, or agent of another foreign or domestic corporation, partnership, limited liability company, joint venture, trust, employee benefit plan, or other entity. A Director is considered to be serving an employee benefit plan at the Corporation's request if that

Director's duties to the Corporation also impose duties on, or otherwise involve services by, him or her to the plan or to participants in or beneficiaries of the plan.

(d) "Disinterested Director" or "Disinterested Officer" means a Director or Officer, respectively, who at the time of a vote or selection referred to in Section 4(b) or 5(c) is not a party to the Proceeding.

(e) "Enterprise" means (i) the Corporation, (ii) any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise that is an affiliate or wholly or partially owned subsidiary of the Corporation and of which Indemnitee is or was serving as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary, and (iii) any other corporation, partnership, limited liability company, joint venture, trust, employee benefit plan or other enterprise of which Indemnitee is or was serving at the express written request of the Corporation as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary.

(f) "Expenses" includes all reasonable counsel fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding. Expenses also shall include Expenses incurred in connection with any appeal resulting from any Proceeding, including the premium, security for, and other costs relating to any cost bond, supersede as bond, or other appeal bond or its equivalent. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(g) "Independent Legal Counsel" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five years has been, retained to represent: (i) the Corporation, (ii) Indemnitee, (iii) any affiliate of the Corporation or Indemnitee, (iv) any member of Indemnitee's immediate family, (v) any company of which Indemnitee is an executive officer, in each case in any matter material to such party, or (vi) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the

foregoing, the term “Independent Legal Counsel” shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Corporation or Indemnitee in an action to determine Indemnitee’s rights under this Agreement.

(h) “Liability” includes the obligation to pay a judgment, settlement, penalty, fine (including an excise tax assessed with respect to an employee benefit plan), or reasonable Expenses actually incurred with respect to a Proceeding.

(i) “Officer” means an individual who is or was an officer of the Corporation or an individual who, while an officer of the Corporation, is or was serving at the Corporation’s request as a director, officer, partner, trustee, employee, or agent of another foreign or domestic corporation, partnership, limited liability company, joint venture, trust, employee benefit plan, or other entity. An Officer is considered to be serving an employee benefit plan at the Corporation’s request if that Officer’s duties to the Corporation also impose duties on, or otherwise involve services by, him or her to the plan or to participants in or beneficiaries of the plan.

(j) “Proceeding” includes any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought by or in the right of the Corporation or other Enterprise or otherwise and whether civil, criminal, administrative or investigative, in which

Indemnitee was, is or will be involved as a party or otherwise, by reason of the fact that Indemnitee is or was an officer or director of the Corporation, by reason of any action taken by Indemnitee or of any inaction on Indemnitee’s part while acting as an officer or director of the Corporation, or by reason of the fact that Indemnitee is or was serving at the request of the Corporation as a director, officer, employee, agent or fiduciary of another Enterprise; in each case whether or not Indemnitee is acting or serving in any such capacity at the time any liability or expense is incurred for which indemnification can be provided under this Agreement; including one pending on or before the date of this Agreement, but excluding one initiated by Indemnitee pursuant to this Agreement to enforce Indemnitee’s rights under this Agreement.

(k) “Reviewing Party” shall mean the person or persons making the entitlement determination pursuant to Section 5 of this Agreement, and shall not include a court making any determination under this Agreement or otherwise.

2. Basic Indemnification Arrangement.

(a) Obligation to Indemnify; Standard of Conduct. Except as provided in Sections 2(e), 2(f), 2(g) or 7 below, the Corporation shall indemnify Indemnitee and hold harmless Indemnitee, to the fullest extent authorized or permitted by applicable law, in the event Indemnitee is made a party to a Proceeding because he or she is or was a Director or Officer, against Liability incurred in the Proceeding if:

(1) Indemnitee conducted himself or herself in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Corporation; and

(2) in the case of any criminal Proceeding, Indemnitee had no reasonable cause to believe his or her conduct was unlawful.

(b) Service with Respect to Employee Benefit Plan. Indemnitee’s conduct with respect to an employee benefit plan for a purpose he or she believed in good faith to be in the interests of the participants in and beneficiaries of the plan is conduct that satisfies the requirement of Section 2(a)(1).

(c) Reliance as Safe Harbor. For purposes of any determination hereunder, Indemnitee shall be deemed to have acted in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the Corporation, or, with respect to any criminal Proceeding, to have had no reasonable cause to believe Indemnitee’s conduct was unlawful, if Indemnitee’s conduct was based primarily on: (i) the records or books of account of the Corporation or relevant entity, including financial statements, (ii) information supplied to Indemnitee by the officers of the Corporation or relevant entity in the course of their duties, (iii) the advice of legal counsel for the Corporation or relevant entity, or (iv) information or records given or reports made to the Corporation or relevant entity by an independent certified public accountant, or by an appraiser or other expert selected with reasonable care by the Corporation or relevant entity. The provisions of this Section 2(c) shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed to have met the relevant standard of conduct set forth in this Agreement.

(d) Termination of Proceeding Not Determinative. The termination of a Proceeding by judgment, order, settlement, or conviction, or upon a plea of nolo contendere or its equivalent shall not, of itself, create a presumption or be determinative that Indemnitee is not entitled to indemnification or reimbursement of Expenses hereunder or otherwise.

(e) Limits on Indemnification. Unless, and then only to the extent that, a court of competent jurisdiction acting pursuant to Section 6 of this Agreement or the Delaware General Corporation Law, determines that, in view of the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification, the Corporation shall not indemnify Indemnitee under this Agreement:

(1) in connection with a Proceeding by or in the right of the Corporation, except for reasonable Expenses (including an excise tax assessed with respect to an employee benefit plan) and amounts paid in settlement not exceeding, in the judgment of the Board, the estimated expense of litigating the Proceeding to conclusion, actually and reasonably incurred in connection with the defense or settlement of the Proceeding, including any appeal thereof; or

(2) in connection with a Proceeding by or in the right of the Corporation with respect to any claim, issue or matter as to which Indemnitee shall have been adjudged liable to the Corporation.

(f) Proceeding Brought by Indemnitee. Notwithstanding any other provision of this Agreement, Indemnitee shall not be entitled to indemnification or advancement of Expenses under this Agreement with respect to any Proceeding or claim brought or made by Indemnitee against the Corporation or its Directors, Officers, employees or other indemnitees, other than (i) a Proceeding or claim seeking or defending Indemnitee’s right to indemnification or advancement of Expenses pursuant to Section 6 of this Agreement or otherwise, or (ii) a Proceeding authorized by the Board prior to its initiation.

(g) Settlements. The Corporation acknowledges that a settlement or other disposition short of final judgment may be successful if it permits a party to avoid expense, delay, distraction, disruption and uncertainty. In the event that any Proceeding to which Indemnitee is a party is resolved in any manner other than by adverse judgment against Indemnitee (including settlement of such Proceeding with or without payment of money or other consideration) it shall be presumed that Indemnitee has been successful on the merits or otherwise in such Proceeding. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

(h) Mandatory Indemnification. The Corporation shall indemnify Indemnitee to the extent that he or she has been successful, on the merits or otherwise, in the defense of any Proceeding to which Indemnitee was a party, or in defense of any claim, issue or matter, because Indemnitee is or was a Director or Officer, against reasonable Expenses incurred by Indemnitee in connection with the Proceeding.

3. Contribution.

(a) Whether or not the indemnification provided hereunder is available, in respect of any Proceeding in which the Corporation is jointly liable with Indemnitee (or would be if joined in such Proceeding), the Corporation shall pay the entire amount of any Expenses, judgments, penalties, fines or amounts paid or to be paid in settlement of such Proceeding without requiring Indemnitee to contribute to such payment and the Corporation hereby waives and relinquishes any right of contribution it may have against Indemnitee. The Corporation shall not enter into any settlement of any Proceeding in which the Corporation is jointly liable with Indemnitee (or would be if joined in such Proceeding) unless such settlement provides for a full and final release of all claims asserted against Indemnitee without any injunction or other equitable relief being imposed against Indemnitee.

(b) Without diminishing or impairing the obligations of the Corporation set forth in the preceding subparagraph, if, for any reason, Indemnitee shall elect or be required to pay all or any portion of any judgment or settlement in any Proceeding in which the Corporation is jointly liable with Indemnitee (or would be if joined in such Proceeding), the Corporation shall contribute to the amount of Expenses, judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by Indemnitee in proportion to the relative benefits received by the Corporation and all officers, directors or employees of the Corporation, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such Proceeding), on the one hand, and Indemnitee, on the other hand, from the transaction from which such Proceeding arose; provided, however, that the proportion determined on the basis of relative benefit may, to the extent necessary to conform to law, be further adjusted by reference to the relative fault of the Corporation and all officers, directors or employees of the Corporation other than Indemnitee who are jointly liable with

Indemnitee (or would be if joined in such Proceeding), on the one hand, and Indemnitee, on the other hand, in connection with the events that resulted in such Expenses, judgments, penalties, fines or settlement amounts, as well as any other equitable considerations which the Delaware General Corporation Law may require to be considered. The relative fault of the Corporation and all officers, directors or employees of the Corporation, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such Proceeding), on the one hand, and Indemnitee, on the other hand, shall be determined by reference to, among other things, the degree to which their actions were motivated by intent to gain personal profit or advantage, the degree to which their liability is primary or secondary and the degree to which their conduct is active or passive.

(c) The Corporation hereby agrees to indemnify and hold harmless Indemnitee from any claims of contribution which may be brought by officers, directors or employees of the Corporation, other than Indemnitee, who may be jointly liable with Indemnitee.

4. Advances for Expenses.

(a) Obligations and Requirements. The Corporation shall advance, to the extent not prohibited by applicable law, the Expenses incurred by or on behalf of Indemnitee in connection with any Proceeding, and such advancement shall be made within thirty (30) days after the receipt by the Corporation of any statement requesting such advances (which shall include invoices received by Indemnitee in connection with such Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law shall not be included with the invoice) from time to time, whether prior to or after final disposition of any Proceeding. Any such statement shall reasonably evidence the Expenses incurred by Indemnitee. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's ability to repay the expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement. Advances shall include any and all reasonable Expenses incurred pursuing an action to enforce this right of advancement, including Expenses incurred preparing and forwarding statements to the Corporation to support the advances claimed. Indemnitee shall qualify for advances upon the execution and delivery to the Corporation of this Agreement, subject to the condition that if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Corporation, Indemnitee shall undertake to the fullest extent permitted by law to repay the advance. Such undertaking shall be an unlimited general obligation of Indemnitee but need not be secured and shall be accepted without reference to Indemnitee's financial ability to make repayment. The right to advances under this Section 4 shall in all events continue until final disposition of any Proceeding, including any appeal thereof.

(b) Evaluation of Reasonableness of Expenses. Evaluation as to reasonableness of Expenses of Indemnitee in the specific case shall be made in the same manner as the determination that

indemnification is permissible, as described in Section 5 below, except that if the determination is made by Independent Legal Counsel, evaluation as to reasonableness of Expenses shall be made by those entitled under Section 5(c)(3) to select Independent Legal Counsel. Notwithstanding the foregoing sentence, any Expenses claimed by Indemnitee shall be deemed reasonable if the Reviewing Party fails to make the reasonableness evaluation within thirty (30) days following the Corporation's receipt of invoices for specific Expenses to be reimbursed or advanced.

5. Authorization of and Determination of Entitlement to Indemnification.

(a) Entitlement Determination. The Corporation and Indemnitee acknowledge that indemnification of Indemnitee under Section 2 of this Agreement has been pre-authorized by the Corporation as permitted by the Delaware General Corporation Law. Nevertheless, the Corporation shall not indemnify Indemnitee under Section 2 unless a separate determination has been made in the specific case that indemnification of Indemnitee is permissible in the circumstances because Indemnitee has met the relevant standard of conduct set forth in Section 2(a); provided, however, that: (i) no such entitlement decision need be made prior to the advancement of Expenses; and (ii) regardless of the result or absence of any such determination, the Corporation shall make any indemnification mandated by Section 2(h) above.

(b) To obtain indemnification (including advancement of Expenses) under this Agreement, Indemnitee shall submit to the Corporation a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification. The Secretary of the Corporation shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that Indemnitee has requested indemnification.

(c) Reviewing Party. The determination referred to in Section 5(a) shall be made, at the election of the Board, by any of the following Reviewing Parties (unless a Change in Control shall have occurred after Indemnitee first began serving as a Director or Officer, in which case Indemnitee shall be entitled to designate that the determination shall be made by Independent Legal Counsel selected in the manner set forth in Section 5(d) below):

(1) by the Board by a majority vote of a quorum consisting of Disinterested Directors; or

(2) by a majority vote of a committee duly designated by the Board (in which designation directors who do not qualify as Disinterested Directors may participate) consisting solely of two or more Disinterested Directors; or

(3) by Independent Legal Counsel: (A) Selected in the manner prescribed in paragraph (1) or (2) of this Section 5(c); or (B) if a quorum of Directors cannot be obtained for purposes of paragraph (1) and the committee cannot be designated under paragraph (2), selected by a majority vote of the full Board (in which selected directors who do not qualify as Disinterested Directors may participate); or

(4) by the stockholders of the Corporation, by a majority vote of a quorum consisting of stockholders who were not Parties to that Proceeding or, if no such quorum is obtainable, by a majority vote of stockholders who were not Parties to that Proceeding.

(d) Selection of Counsel after Change in Control. If a Change in Control shall have occurred, Independent Legal Counsel shall be selected by Indemnitee (unless Indemnitee requests that the

selection be made in the manner described in Section 5(c)(3)), and Indemnitee shall give written notice to the Corporation advising it of the identity of the Independent Legal Counsel so selected. In either event, Indemnitee or the Corporation, as the case may be, may, within fifteen (15) days after the written notice of selection has been given, deliver to the Corporation or to Indemnitee, as the case may be, a written objection to the selection; provided, however, that the objection may be asserted only on the ground that the counsel so selected does not meet the requirements of "Independent Legal Counsel" as defined in Section 1 of this Agreement. The objection shall set forth with particularity the factual basis of the assertion. If a written objection is made and substantiated, the counsel selected may not serve as Independent Legal Counsel unless and until the objection is withdrawn or a court has determined that the objection is without merit. If, within fifteen (15) days after submission by Indemnitee of a written request for indemnification, no Independent Legal Counsel shall have been selected and not objected to, either the Corporation or Indemnitee may petition the court conducting the Proceeding, or another court of competent jurisdiction, for resolution of any objection that shall have been made by the Corporation or Indemnitee to the other's selection of Independent Legal Counsel and/or for the appointment as Independent Legal Counsel of a person selected by the court or by another person that the court shall designate, and the person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Legal Counsel under Section 5(c).

(e) Cooperation by Indemnitee. Indemnitee shall cooperate with the Reviewing Party with respect to its determination of Indemnitee's entitlement to indemnification, including providing to the Reviewing Party on reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to the determination. Any Expenses incurred by Indemnitee in so cooperating with the Reviewing Party shall be borne by the Corporation, regardless of the determination as to Indemnitee's entitlement to indemnification.

(f) If the Reviewing Party shall not have made a determination within sixty (60) days after receipt by the Corporation of the request therefor, the requisite determination of entitlement to indemnification shall be deemed to have been made and Indemnitee shall be entitled to such indemnification absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law; provided, however, that (x) such 60-day period may be extended for a reasonable time, not to exceed an additional thirty (30) days, if the Reviewing Party in good faith requires such additional time to obtain or evaluate documentation and/or information relating thereto; and (y) that the foregoing provisions of this Section 5(f) shall not apply if the determination of entitlement to indemnification is to be made by the stockholders pursuant to Section 5(c)(4) and if (A) within fifteen (15) days after receipt by the Corporation of the request for such determination, the Board or the Disinterested Directors, if appropriate, resolve to submit such determination to the stockholders for their consideration at an annual meeting thereof to be held within seventy-five (75) days after such receipt and such determination is made thereat, or (B) a special meeting of stockholders is called within fifteen (15) days after such receipt for the purpose of making such determination, such meeting is held for such purpose within sixty (60) days after having been so called and such determination is made thereat.

(g) Other.

(i) In making a determination with respect to entitlement to indemnification hereunder, the Reviewing Party shall presume that Indemnitee is entitled to indemnification under this Agreement, and anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence. Neither the failure of the Corporation (including by its directors or Independent Legal Counsel) to have made a determination prior to the commencement of any action

pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Corporation (including by its directors or Independent Legal Counsel) that Indemnitee has not met such applicable standard of conduct, shall create a presumption that Indemnitee has not met the applicable standard of conduct.

(ii) The Reviewing Party, however chosen, shall make the requested determination as promptly as reasonably practicable after a request for indemnification is presented.

(iii) Any determination by Independent Legal Counsel under this Section 5 shall be delivered in the form of a written opinion to the Board with a copy to Indemnitee.

(iv) The Corporation shall pay any and all reasonable fees and expenses of Independent Legal Counsel incurred by the counsel in connection with acting pursuant to this Section 5, and the Corporation shall pay all reasonable fees and expenses incident to the procedures of this Section 5, regardless of the manner in which such Independent Legal Counsel was selected or appointed.

(v) On the due commencement of any action to seek court-ordered indemnification pursuant to Section 6 of this Agreement, Independent Legal Counsel shall be discharged and relieved of any further responsibility in that capacity, subject to the applicable standards of professional conduct then prevailing.

6. Court-Ordered Indemnification and Advances for Expenses.

(a) Procedure. If Indemnitee is a party to a Proceeding, he or she may apply for indemnification or for advances for Expenses to the court conducting the Proceeding or to another court of competent jurisdiction. For purposes of this Agreement, the Corporation consents to personal jurisdiction and venue in any court in which is pending a Proceeding to which Indemnitee is a party. Regardless of any determination by the Reviewing Party that Indemnitee is not entitled to indemnification or to advancement of Expenses or as to the reasonableness of Expenses, and regardless of any failure by the Reviewing Party to make a determination as to the entitlement or the reasonableness of Expenses, the court's review shall be a de novo review. After receipt of an application and after giving any notice it considers necessary, the court may:

(1) order indemnification or the advance for Expenses if it determines that Indemnitee is entitled to indemnification or to advance for Expenses under this Agreement, the Delaware General Corporation Law or otherwise; or

(2) order indemnification or the advance for Expenses if it determines that, in view of all the relevant circumstances, it is fair and reasonable to indemnify Indemnitee, or to advance Expenses to Indemnitee, regardless of whether Indemnitee has met the relevant standard of conduct, complied with the requirements for advancement of Expenses, or been adjudged liable in a Proceeding referred to in Section 2(e) above (in which case any court-ordered indemnification need not be limited to Expenses incurred by Indemnitee, but may include penalties, fines, amounts paid in settlement, judgments and any other amounts ordered by the court to be indemnified or advanced).

(b) Payment of Expenses to Seek Court-Ordered Indemnification. If the court determines that Indemnitee is entitled to indemnification or to advance for Expenses, the Corporation shall pay Indemnitee's reasonable Expenses to obtain the court-ordered indemnification or advance for Expenses.

7. Limitations on Indemnification. Regardless of whether Indemnitee has met the relevant standard of conduct set forth in Section 2(a), nothing in this Agreement shall require or permit indemnification of Indemnitee for any Liability or Expenses incurred in a Proceeding in which a judgment or other final adjudication establishes that Indemnitee's actions or omissions to act were material to the cause of action so adjudicated and constitute:

(a) a violation of criminal law, unless Indemnitee had reasonable cause to believe his or her conduct was lawful or had no reasonable cause to believe his or her conduct was unlawful;

(b) a transaction from which Indemnitee derived an improper personal benefit, including, without limitation, any benefits received through the purchase and sale by Indemnitee of securities of the Corporation within the meaning of Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of state statutory law or common law; or

(c) willful misconduct or a conscious disregard for the best interests of the Corporation in a Proceeding by or in the right of the Corporation to procure a judgment in its favor or in a Proceeding by or in the right of a stockholder of the Corporation.

8. Exclusive Forum. The Corporation and Indemnitee acknowledge and agree that the sole and exclusive forum for any cause of action brought by the Corporation or Indemnitee arising under this Agreement shall be the United States District Court for the District of Delaware, if a basis for federal court jurisdiction is present, or otherwise, at the Delaware Court of Chancery, and the Corporation and Indemnitee each hereby submit to the personal jurisdiction of such court(s).

9. Vested Rights; Specific Performance. No amendment to the Certificate of Incorporation or Bylaws of the Corporation or any other corporate action shall in any way limit Indemnitee's rights under this Agreement. In any Proceeding brought by or on behalf of Indemnitee to specifically enforce the provisions of this Agreement, the Corporation waives the claim or defense in that Proceeding that the plaintiff or claimant has an adequate remedy at law, and the Corporation shall not urge in any such Proceeding the claim or defense that an adequate remedy at law exists. The provisions of this Section 9, however, shall not prevent Indemnitee from seeking a remedy at law in connection with any breach of this Agreement.

10. Liability Insurance. To the extent the Corporation maintains an insurance policy or policies providing directors' or officers' liability insurance, Indemnitee shall be covered by that policy or those policies, in accordance with its or their terms, to the maximum extent of the coverage provided under that policy or those policies in effect for any other Director or Officer of the Corporation, as the case may be.

11. Witness Fees. Notwithstanding any other provision in this Agreement, to the extent that Indemnitee is made a witness in any Proceeding to which Indemnitee is not a party, because he or she is or was a Director or Officer, the Corporation shall indemnify and hold harmless Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith.

12. Security for Indemnification Obligations. The Corporation may at any time and in any manner, at the discretion of the Board, secure the Corporation's obligations to indemnify or advance Expenses to Indemnitee pursuant to this Agreement.

13. Non-exclusivity, No Duplication of Payments. The rights of Indemnitee under this Agreement shall be in addition to any other rights with respect to indemnification, advancement of

Expenses or otherwise that Indemnitee may have under the Certificate of Incorporation or Bylaws, the Delaware General Corporation Law or otherwise; provided, however, that the Corporation shall not be liable under this Agreement to make any payment to Indemnitee under this Agreement to the extent Indemnitee has otherwise actually received payment (under any insurance policy, provision of the Certificate of Incorporation or Bylaws, or otherwise) of the amounts otherwise payable under this Agreement. The Corporation's obligation to indemnify or advance expenses under this Agreement to Indemnitee who is or was serving at the request of the Corporation as a director, officer, partner, trustee, employee or agent of any other entity shall be reduced by any amount Indemnitee has actually received as indemnification or advancement of expenses from that other entity.

14. Amendments. To the extent that the provisions of this Agreement are held to be inconsistent with the provisions of the Delaware General Corporation Law, the provisions of that statute shall govern. To the extent that the Delaware General Corporation Law is later amended to permit a Delaware corporation, without the need for stockholder approval, to provide to its directors greater rights to indemnification or advancement of Expenses than those specifically set forth here, this Agreement shall be deemed amended to require the greater indemnification or more liberal advancement of Expenses to Indemnitee, in each case consistent with the Delaware General Corporation Law as so amended from time to time. Otherwise, no supplement, modification or amendment of this Agreement shall be binding unless executed in writing by the Corporation and Indemnitee.

15. Subrogation. In the event of payment under this Agreement, the Corporation shall be subrogated to the extent of that payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and shall do everything that may be necessary to secure those rights, including the execution of documents necessary to enable the Corporation effectively to bring suit to enforce those rights; provided, however, that any rights of recovery of Indemnitee pursuant to any liability insurance policy separately paid for by Indemnitee shall not be subject to subrogation under this Section 15 except that any amounts recovered under such policy shall be subject to Section 13 hereof.

16. Waiver. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement (whether or not similar) nor shall such a waiver constitute a continuing waiver.

17. Binding Effect, Etc. This Agreement shall be binding on and inure to the benefit of and be enforceable by the parties to this Agreement and their respective successors or assigns (including any direct or indirect successor or assign by purchase, merger, consolidation or otherwise to all or substantially all of the business and/or assets of the Corporation), spouses, heirs, and personal and legal representatives.

18. Applicability of Agreement. This Agreement shall apply retroactively with respect to acts or omissions of Indemnitee occurring since the date that Indemnitee first became a Director or Officer, and this Agreement shall continue in effect regardless of whether Indemnitee continues to serve as a Director or Officer, but only in respect of acts or omissions occurring prior to the termination of Indemnitee's service as a Director or Officer.

19. Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal, or unenforceable for any reason whatsoever:

(a) the validity, legality, and enforceability of the remaining provisions of this Agreement (including without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal, or unenforceable, that is not itself invalid, illegal, or unenforceable) shall not in any way be affected or impaired by it;

(b) the provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties to this Agreement; and

(c) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any provision held to be invalid, illegal, or unenforceable, that is not itself invalid, illegal, or unenforceable) shall be construed so as to give effect to the intent manifested by it.

20. Governing Law. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Delaware applicable to contracts made and to be performed in Delaware without giving effect to the principles of conflicts of laws.

21. Headings. The headings of the Sections of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction of this Agreement.

22. Inducement. The Corporation expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it under this Agreement in order to induce Indemnitee to serve or continue to serve as a Director and/or Officer, and the Corporation acknowledges that Indemnitee is relying on this Agreement in serving as a director, officer, employee or agent of the Corporation or, at the request of the Corporation, as a director, officer, partner, trustee, employee, or agent of another foreign or domestic corporation, partnership, limited liability company, joint venture, trust, employee benefit plan or other entity.

23. Notice by Indemnitee. Indemnitee agrees promptly to notify the Corporation in writing upon being served with any summons, citation, subpoena, complaint, indictment, information, or other document relating to any Proceeding or matter which may be subject to indemnification or advancement of Expenses covered under this Agreement. The failure of Indemnitee so to notify the Corporation shall not relieve the Corporation of any obligation that it may have to Indemnitee under this Agreement or otherwise.

24. Notices. All notices, requests, demands, and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if: (i) delivered by hand and receipted for by the party to whom the notice or other communication shall have been directed; or (ii) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed if to the Corporation, to the principal office address of the Corporation, or if to Indemnitee, to the address of Indemnitee last on file with the Corporation, or to any other address that may have been furnished to Indemnitee by the Corporation or to the Corporation by Indemnitee, as the case may be.

[Signature page follows.]

The parties hereto have entered into this Agreement effective as of the date first above written.

The Corporation:

LIQUIDIA TECHNOLOGIES, INC.

By: _____
Name:
Title:

Indemnitee:

_____
[ ]

Address:

[Signature Page to Liquidia Technologies, Inc. Indemnification Agreement]

Exhibit 10.5

[Execution Version]

LIQUIDIA TECHNOLOGIES, INC.

LOAN AND SECURITY AGREEMENT

This LOAN AND SECURITY AGREEMENT (this "Agreement") is entered into as of January 6, 2016, by and between PACIFIC WESTERN BANK, a California state chartered bank ("Bank") and LIQUIDIA TECHNOLOGIES, INC., a Delaware corporation ("Borrower").

RECITALS

Borrower wishes to obtain credit from time to time from Bank, and Bank desires to extend credit to Borrower. This Agreement sets forth the terms on which Bank will advance credit to Borrower and Borrower will repay the amounts owing to Bank.

AGREEMENT

The parties agree as follows:

1. DEFINITIONS AND CONSTRUCTION.

1.1 Definitions. As used in this Agreement, all capitalized terms shall have the definitions set forth on Exhibit A. Any term used in the Code and not defined herein shall have the meaning given to the term in the Code.

1.2 Accounting Terms. Any accounting term not specifically defined on Exhibit A shall be construed in accordance with GAAP and all calculations shall be made in accordance with GAAP (except for non-compliance with FAS 123R in monthly reporting). The term "financial statements" shall include the accompanying notes and schedules.

2. LOAN AND TERMS OF PAYMENT.

2.1 Credit Extensions.

(a) Promise to Pay. Borrower promises to pay to Bank, in lawful money of the United States of America, the aggregate unpaid principal amount of all Credit Extensions made by Bank to Borrower, together with interest on the unpaid principal amount of such Credit Extensions at rates in accordance with the terms hereof.

(b) Term Loan.

(i) Subject to and upon the terms and conditions of this Agreement, Bank agrees to make one (1) or more term loans to Borrower in an aggregate principal amount not to exceed $3,000,000 (each a "Term Loan", and, collectively, the "Term Loans"). Borrower may request Term Loans at any time from the date hereof through the Availability End Date, provided that each Term Loan so requested shall be in the principal amount of $250,000 or an integral multiple thereof. The proceeds of the Term Loans shall be used for general working capital purposes and for capital expenditures.

(ii) Interest shall accrue from the date of each Term Loan at the rate specified in Section 2.3(a) and, prior to the Availability End Date for the applicable Term Loan, shall be payable monthly beginning on the 18th day of the month next following such Term Loan and continuing on the same day of each month thereafter. Any Term Loans that

are outstanding on the Availability End Date shall be payable in thirty (30) equal monthly installments of principal, plus all accrued interest, beginning on August 6, 2017, and continuing on the same day of each month thereafter through the Term Loan Maturity Date, at which time all amounts due in connection with the Term Loans and any other amounts due under this Agreement shall be immediately due and payable. Term Loans, once repaid, may not be reborrowed. Borrower may prepay any Term Loan without penalty or premium.

(iii) When Borrower desires to obtain a Term Loan, Borrower shall notify Bank (which notice shall be irrevocable) by facsimile transmission to be received no later than 3:30 p.m. Eastern time on the Business Day prior to the date on which the Term Loan is to be made. Such notice shall be substantially in the form of Exhibit C. The notice shall be signed by an Authorized Officer.

(c) Usage of Credit Card Services Under the Credit Card Line.

(i) Usage Period. Subject to and upon the terms and conditions of this Agreement, at any time from the Closing Date through the Credit Card Maturity Date, Borrower may use the Credit Card Services (as defined below) in amounts and upon terms as provided in Section 2.1(c)(ii) below.

(ii) Credit Card Services. Subject to and upon the terms and conditions of this Agreement, Borrower may request corporate credit cards and standard and e-commerce merchant account services from Bank (collectively, the "Credit Card Services"). The aggregate limit of the corporate credit cards and merchant credit card processing reserves shall not exceed the Credit Card Line. The terms and conditions (including repayment and fees) of such Credit Card Services shall be subject to the terms and conditions of Bank's standard forms of application and agreement for the Credit Card Services, which Borrower hereby agrees to execute.

(iii) Collateralization of Obligations Extending Beyond Maturity. If Borrower has not cash secured its obligations with respect to any Credit Card Services by the Credit Card Maturity Date, then, effective as of such date, the balance in any deposit accounts held by Bank and the certificates of deposit or time deposit accounts issued by Bank in Borrower's name (and any interest paid thereon or proceeds thereof, including any amounts payable upon the maturity or liquidation of such certificates or accounts), shall automatically secure such obligations to the extent of the then continuing or outstanding Credit Card Services. Borrower authorizes Bank to hold such balances in pledge and to decline to honor any drafts thereon or any requests by Borrower or any other Person to pay or otherwise transfer any part of such balances for so long as the applicable Credit Card Services are outstanding or continue.

2.2 [Reserved].

2.3 Interest Rates, Payments, and Calculations.

(a) Interest Rates. Except as set forth in Section 2.3(b), the Term Loans shall bear interest, on the outstanding daily balance thereof, at a rate equal to (i) 3.75% for

the period commencing on the Closing Date and ending on the Availability End Date, and (ii) 5.00% commencing on the day immediately following the Availability End Date.

(b) Late Fee; Default Rate. If any payment is not made within fifteen (15) days after the date such payment is due, Borrower shall pay Bank a late fee equal to the lesser of (i) 5% of the amount of such unpaid amount or (ii) the maximum amount permitted to be charged under applicable law. All Obligations shall bear interest, from and after the occurrence and during the continuance of an Event of Default, at a rate equal to five (5) percentage points above the interest rate applicable immediately prior to the occurrence of the Event of Default.

(c) Payments. Bank shall, at its option, charge interest, all Bank Expenses, and all Periodic Payments against any of Borrower's deposit accounts. Any interest not paid when due shall be compounded by becoming a part of the Obligations, and such interest shall thereafter accrue interest at the rate then applicable hereunder.

(d) **Computation**. All interest chargeable under the Loan Documents shall be computed on the basis of a three hundred sixty (360)-day year for the actual number of days elapsed.

2.4 **Crediting Payments**. Other than any time after the occurrence and during the continuation of an Event of Default, Bank shall credit a wire transfer of funds, check or other item of payment to such deposit account or Obligation as Borrower specifies, except that, to the extent Borrower uses the Term Loans to purchase Collateral, Borrower's repayment of the Term Loans shall apply on a "first-in-first-out" basis so that the portion of the Term Loans used to purchase a particular item of Collateral shall be paid in the chronological order Borrower purchased the Collateral. After the occurrence and during the continuance of an Event of Default, Bank shall have the right, in its sole discretion, to immediately apply any wire transfer of funds, check, or other item of payment Bank may receive to conditionally reduce Obligations, but such application of funds shall not be considered a payment on account unless such payment is of immediately available federal funds or unless and until such check or other item of payment is honored when presented for payment. Notwithstanding anything to the contrary contained herein, any wire transfer or payment received by Bank after 5:30 p.m. Eastern time shall be deemed to have been received by Bank as of the opening of business on the immediately following Business Day. Whenever any payment to Bank under the Loan Documents would otherwise be due (except by reason of acceleration) on a date that is not a Business Day, such payment shall instead be due on the next Business Day, and additional fees or interest, as the case may be, shall accrue and be payable for the period of such extension.

2.5 **Fees**. Borrower shall pay to Bank the following:

(a) **Facility Fee**. On or before the Closing Date, a fee equal to $15,000 ($5,000 of which was paid upon delivery of that certain Expression of Interest dated August 20, 2015), which shall be nonrefundable;

(b) **Success Fee**. Upon the occurrence of a Liquidity Event, a one-time success fee equal to $100,000, which shall be nonrefundable. This Section 2.5(b) shall survive any termination of this Agreement.

(c) **Bank Expenses**. On the Closing Date, all Bank Expenses incurred through the Closing Date and, after the Closing Date, all Bank Expenses, as and when they become due.

2.6 **Term**. This Agreement shall become effective on the Closing Date and, subject to Section 12.7, shall continue in full force and effect for so long as any Obligations (other than inchoate indemnity obligations) remain outstanding or Bank has any obligation to make Credit Extensions under this Agreement. Notwithstanding the foregoing, Bank shall have the right to terminate its obligation to make Credit Extensions under this Agreement immediately and without notice upon the occurrence and during the continuance of an Event of Default.

3. **CONDITIONS OF LOANS**.

3.1 **Conditions Precedent to Closing**. The agreement of Bank to enter into this Agreement on the Closing Date is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, each the following items and completed each of the following requirements:

(a) this Agreement;

(b) an officer's certificate of Borrower with respect to incumbency and resolutions authorizing the execution and delivery of this Agreement;

(c) a financing statement (Form UCC-1);

(d) payment of the fees and Bank Expenses then due specified in Section 2.5, which may be debited from any of Borrower's accounts with Bank;

(e) current SOS Reports indicating that, except for Permitted Liens, there are no other security interests or Liens of record in the Collateral;

(f) current financial statements, including audited statements (or such other level required by the Investment Agreement) for Borrower's most recently ended fiscal year, together with an unqualified opinion (or an opinion qualified only for going concern so long as Borrower's investors provide additional equity as needed), company prepared consolidated and consolidating balance sheets, income statements and statements of cash flows for the most recently ended month in accordance with Section 6.2, and such other updated financial information as Bank may reasonably request;

(g) current Compliance Certificate in accordance with Section 6.2;

(h) a Borrower Information Certificate;

(i) evidence satisfactory to Bank that the insurance policies required by Section 6.5 hereof are in full force and effect, together with appropriate evidence showing loss payable and additional insured clauses or endorsements in favor of Bank;

(j) such other documents or certificates, and completion of such other matters, as Bank may reasonably request; and

(k) Borrower shall have opened and funded not less than $50,000 in deposit accounts held with Bank.

3.2 **Conditions Precedent to all Credit Extensions**. The obligation of Bank to make each Credit Extension, including the initial Credit Extension, is contingent upon Borrower's compliance with Section 3.1 above and is further subject to the following conditions:

(a) timely receipt by Bank of the Loan Advance/Paydown Request Form as provided in Section 2.1;

(b) Borrower shall have transferred substantially all of its Cash assets into operating accounts held with Bank and shall otherwise be in compliance with Section 6.6 hereof;

(c) in Bank's sole discretion, there has not been a Material Adverse Effect; and

(d) the representations and warranties contained in Article 5 shall be true and correct in all material respects on and as of the date of such Loan Advance/Paydown Request Form and on the effective date of each Credit Extension as though made at and as of each such date, and no Event of Default shall have occurred and be continuing, or would exist after giving effect to such Credit Extension (provided, however, that those representations and warranties expressly referring to another date shall be true, correct and complete in all material respects as of such date). The making of each Credit Extension shall be deemed to be a representation and warranty by Borrower on the date of such Credit Extension as to the accuracy of the facts referred to in this Section 3.2.

4. **CREATION OF SECURITY INTEREST**.

4.1 **Grant of Security Interest**. Borrower grants and pledges to Bank a continuing security interest in the Collateral to secure prompt repayment of any and all Obligations and to secure prompt performance by Borrower of each of its covenants and duties under the Loan Documents. Except for Permitted Liens or as disclosed in the Schedule, such security interest constitutes a valid, first priority security interest in the presently existing Collateral and will constitute a valid, first priority security interest in later-acquired Collateral. Borrower also hereby agrees not to sell, transfer, assign, mortgage, pledge, lease, grant a security interest in, or encumber any of its Intellectual Property, except for any Permitted Transfers. Notwithstanding any termination of this Agreement or of any filings undertaken related to Bank's rights under the Code, Bank's Lien on the Collateral shall remain in effect for so long as any Obligations (other than inchoate indemnity obligations) are outstanding.

4.2 **Perfection of Security Interest**. Borrower authorizes Bank to file at any time financing statements, continuation statements, and amendments thereto that (a) either specifically describe the Collateral or describe the Collateral as all assets of Borrower of the kind pledged hereunder, and (b) contain any other information required by the Code for the sufficiency of filing office acceptance of any financing statement, continuation statement, or amendment, including whether Borrower is an organization, the type of organization and any organizational identification number issued to Borrower, if applicable. Borrower shall have possession of the Collateral, except where expressly otherwise provided in this Agreement or where Bank chooses to perfect its security interest by

possession in addition to the filing of a financing statement. Where Collateral is in possession of a third-party bailee, Borrower shall take such steps as Bank reasonably requests for Bank to (x) subject to Section 7.11 below, obtain an acknowledgment, in form and substance satisfactory to Bank, of the bailee that the bailee holds such Collateral for the benefit of Bank, and (y) obtain "control" of any Collateral consisting of investment property, deposit accounts, letter-of-credit rights or electronic chattel paper (as such items and the term "control" are defined in Revised Article 9 of the Code) by causing the securities intermediary or depositary institution or issuing bank to execute a control agreement in form and substance satisfactory to Bank. Borrower will not create any chattel paper without placing a legend on the chattel paper acceptable to Bank indicating that Bank has a security interest in the chattel paper. Borrower from time to time may deposit with Bank specific cash collateral to secure specific Obligations; Borrower authorizes Bank to hold such specific balances in pledge and to decline to honor any drafts thereon or any request by Borrower or any other Person to pay or otherwise transfer any part of such balances for so long as the specific Obligations are outstanding. Borrower shall take such other actions as Bank requests to perfect its security interests granted under this Agreement.

5. REPRESENTATIONS AND WARRANTIES.

Borrower represents and warrants as follows:

5.1 Due Organization and Qualification. Borrower and each Subsidiary is duly existing under the laws of the state in which it is organized and qualified and licensed to do business in any state in which the conduct of its business or its ownership of property requires that it be so qualified, except where the failure to do so would not reasonably be expected to cause a Material Adverse Effect.

5.2 Due Authorization; No Conflict. The execution, delivery, and performance of the Loan Documents are within Borrower's powers, have been duly authorized, and are not in conflict with nor constitute a breach of any provision contained in Borrower's Certificate of Incorporation or Bylaws, nor will they constitute an event of default under any material agreement by which Borrower is bound. Borrower is not in default under any agreement by which it is bound, including that certain Amended and Restated License Agreement dated December 15, 2008 by and between the University of North Carolina at Chapel Hill and Borrower, except to the extent such default would not reasonably be expected to cause a Material Adverse Effect.

5.3 Collateral. Borrower has rights in or the power to transfer the Collateral, and its title to the Collateral is free and clear of Liens, adverse claims, and restrictions on transfer

or pledge except for Permitted Liens. Other than movable items of personal property such as laptop computers, all Collateral having an aggregate book value in excess of $100,000 is located solely in the Collateral States. All Inventory is in all material respects of good and merchantable quality, free from all material defects, except for Inventory for which adequate reserves have been made. Except as set forth in the Schedule, none of Borrower's Cash is maintained or invested with a Person other than Bank or Bank's Affiliates.

5.4 Intellectual Property. Borrower's Intellectual Property is set forth on Schedule 5.4 hereto. Borrower is the licensee, joint owner or sole owner of the Intellectual Property, as set forth on Schedule 5.4, except for licenses granted by Borrower in the ordinary course of business. To Borrower's knowledge, each of the Copyrights, Patents and Trademarks created or purchased by Borrower is valid and enforceable, and no part of the Intellectual Property created or purchased by Borrower has been judged invalid or unenforceable, in whole or in part, and no claim has been made to Borrower that any part of the Intellectual Property created or purchased by Borrower violates the rights of any third party except to the extent such claim would not reasonably be expected to cause a Material Adverse Effect.

5.5 Name; Location of Chief Executive Office. Except as disclosed in the Schedule, Borrower has not done business under any name other than that specified on the signature page hereof, and its exact legal name is as set forth in the first paragraph of this Agreement. The chief executive office of Borrower is located at the address indicated in Article 10 hereof.

5.6 Litigation. Except as set forth in the Schedule, there are no actions or proceedings pending by or against Borrower or any Subsidiary before any court or administrative agency in which a likely adverse decision would reasonably be expected to have a Material Adverse Effect.

5.7 No Material Adverse Change in Financial Statements. All consolidated and consolidating financial statements related to Borrower and any Subsidiary that are delivered by Borrower to Bank fairly present in all material respects Borrower's consolidated and consolidating financial condition as of the date thereof and Borrower's consolidated and consolidating results of operations for the period then ended. There has not been a material adverse change in the consolidated or in the consolidating financial condition of Borrower since the date of the most recent of such financial statements submitted to Bank.

5.8 Solvency, Payment of Debts. Borrower is able to pay its debts (including trade debts) as they mature; the fair saleable value of Borrower's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; and Borrower is not left with unreasonably small capital after the transactions contemplated by this Agreement.

5.9 Compliance with Laws and Regulations. Borrower and each Subsidiary have met the minimum funding requirements of ERISA with respect to any employee benefit plans subject to ERISA. No event has occurred resulting from Borrower's failure to comply with ERISA that is reasonably likely to result in Borrower's incurring any liability that could have a Material Adverse Effect. Borrower is not an "investment company" or a company "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940.

Borrower is not engaged principally, or as one of its important activities, in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulations T and U of the Board of Governors of the Federal Reserve System). Borrower has not violated any statutes, laws, ordinances or rules applicable to it, the violation of which would reasonably be expected to have a Material Adverse Effect. Borrower and each Subsidiary have filed or caused to be filed all tax returns required to be filed and have paid, or have made adequate provision for the payment of, all taxes reflected therein except those being contested in good faith with adequate reserves under GAAP or where the failure to file such returns or pay such taxes would not reasonably be expected to have a Material Adverse Effect.

5.10 Subsidiaries. Borrower does not own any stock, partnership interest or other equity securities of any Person, except for Permitted Investments.

5.11 Government Consents. Borrower and each Subsidiary have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all governmental authorities that are necessary for the continued operation of Borrower's business as currently conducted, except where the failure to do so would not reasonably be expected to cause a Material Adverse Effect.

5.12 Inbound Licenses. Except as disclosed on the Schedule, Borrower is not a party to, nor is bound by, any material license or other agreement important for the conduct of Borrower's business that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property important for the conduct of Borrower's business, other than this Agreement or the other Loan Documents.

5.13 Full Disclosure. No representation, warranty or other statement made by Borrower in any certificate or written statement furnished to Bank taken together with all such certificates and written statements furnished to Bank contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained in such certificates or statements not misleading in light of the circumstances in which they were made, it being recognized by Bank that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not to be viewed as facts and that actual results during the period or periods covered by any such projections and forecasts may differ from the projected or forecasted results.

6. AFFIRMATIVE COVENANTS.

Borrower covenants that, until payment in full of all outstanding Obligations (other than inchoate indemnity obligations) and for so long as Bank may have any commitment to make a Credit Extension hereunder, Borrower shall do all of the following:

6.1 Good Standing and Government Compliance. Borrower shall maintain its and each of its Subsidiaries' corporate existence and good standing in the respective states of formation, shall maintain qualification and good standing in each other jurisdiction in which the failure to so qualify would reasonably be expected to have a Material Adverse Effect, and shall furnish to Bank the organizational identification number issued to Borrower by the authorities of the state in which Borrower is organized, if applicable. Borrower shall meet, and shall cause

each Subsidiary to meet, the minimum funding requirements of ERISA with respect to any employee benefit plans subject to ERISA. Borrower shall comply, and shall cause each Subsidiary to comply, with all statutes, laws, ordinances and government rules and regulations to which it is subject and shall maintain, and shall cause each of its Subsidiaries to maintain, in force all licenses, approvals and agreements, the loss of which or failure to comply with which would reasonably be expected to have a Material Adverse Effect.

6.2 Financial Statements, Reports, Certificates. Borrower shall deliver to Bank: (a) as soon as available, but in any event within thirty (30) days after the end of each calendar month, a company prepared consolidated and consolidating balance sheet, income statement, and statement of cash flows covering Borrower's operations during such period, in a form reasonably acceptable to Bank and certified by a Responsible Officer; (b) as soon as available, but in any event: (i) on or prior to November 15, 2015 with respect to the fiscal year of Borrower ended December 31, 2014 and (ii) within one hundred eighty (180) days after the end of each fiscal year of Borrower thereafter, audited (or such other level as is required by the Investment Agreement) consolidated and consolidating financial statements of Borrower prepared in accordance with GAAP, consistently applied, together with an opinion which is either unqualified, qualified only for going concern so long as Borrower's investors provide additional equity as needed or otherwise consented to in writing by Bank on such financial statements of an independent certified public accounting firm reasonably acceptable to Bank; (c) an annual budget approved by Borrower's board of directors as soon as available but not later than January 15th of each year during the term of this Agreement; (d) if applicable, copies of all statements, reports and notices sent or made available generally by Borrower to its security holders or to any holders of Subordinated Debt and all reports on Forms 10-K and 10-Q filed with the Securities and Exchange Commission; (e) promptly upon receipt of notice thereof, a report of any legal actions pending or threatened against Borrower or any Subsidiary that could reasonably be expected to result in damages or costs to Borrower or any Subsidiary of $250,000 or more; (f) promptly upon receipt, each management letter prepared by Borrower's independent certified public accounting firm regarding Borrower's management control systems; and (g) such budgets, sales projections, operating plans or other financial information generally prepared by Borrower in the ordinary course of business as Bank may reasonably request from time to time.

(x) Within thirty (30) days after the last day of each month, Borrower shall deliver to Bank with the monthly financial statements a Compliance Certificate certified as of the last day of the applicable month and signed by a Responsible Officer in substantially the form of Exhibit D hereto.

(y) As soon as possible and in any event within three (3) calendar days after becoming aware of the occurrence or existence of an Event of Default hereunder, Borrower shall deliver a written statement of a Responsible Officer setting forth details of the Event of Default and the action which Borrower has taken or proposes to take with respect thereto.

(z) Bank (through any of its officers, employees, or agents) shall have the right, upon reasonable prior notice, from time to time during Borrower's usual business hours but no more than twice a year (unless an Event of Default has occurred and is continuing), to inspect Borrower's Books and to make copies thereof and to check, test, inspect, audit, and

appraise the Collateral at Borrower's expense in order to verify Borrower's financial condition or the amount, condition of, or any other matter relating to the Collateral.

Borrower may deliver to Bank on an electronic basis any certificates, reports or information required pursuant to this Section 6.2, and Bank shall be entitled to rely on the information contained in the electronic files, provided that Bank in good faith believes that the files were delivered by a Responsible Officer. Borrower shall include a submission date on any certificates and reports to be delivered electronically.

6.3 Inventory and Equipment; Returns. Borrower shall keep all Inventory and Equipment in good and merchantable condition, free from all material defects except for Inventory and Equipment (a) sold in the ordinary course of business, and (b) for which adequate reserves have been made, in all cases in the United States and such other locations as to which Borrower gives prior written notice. Returns and allowances, if any, as between Borrower and its account debtors shall be on the same basis and in accordance with the usual customary practices of Borrower, as they exist on the Closing Date. Borrower shall promptly notify Bank of all returns and recoveries and of all disputes and claims involving Inventory having a book value of more than $100,000.

6.4 Taxes. Borrower shall make, and cause each Subsidiary to make, due and timely payment or deposit of all material federal, state, and local taxes, assessments, or contributions required of it by law, including, but not limited to, those laws concerning income taxes, F.I.C.A., F.U.T.A., and state disability, and will execute and deliver to Bank, on demand, proof satisfactory to Bank indicating that Borrower or a Subsidiary has made such payments or deposits and any appropriate certificates attesting to the payment or deposit thereof; provided that Borrower or a Subsidiary need not make any payment if the amount or validity of such payment is contested in good faith by appropriate proceedings and is reserved against (to the extent required by GAAP) by Borrower or such Subsidiary.

6.5 Insurance. Borrower, at its expense, shall (a) keep the Collateral insured against loss or damage, and (b) maintain liability and other insurance, in each case as ordinarily insured against by other owners in businesses similar to Borrower's. All such policies of insurance shall be in such form, with such companies, and in such amounts as reasonably satisfactory to Bank. All policies of property insurance shall contain a lender's loss payable endorsement, in a form satisfactory to Bank, showing Bank as an additional loss payee, and all liability insurance policies shall show Bank as an additional insured and specify that the insurer must give at least twenty (20) days' notice to Bank before canceling its policy for any reason. Within thirty (30) days of the Closing Date, Borrower shall cause to be furnished to Bank a copy of its policies or certificate of insurance including any endorsements covering Bank or showing Bank as an additional insured. Upon Bank's request, Borrower shall deliver to Bank certified copies of the policies of insurance and evidence of all premium payments. Proceeds payable under any casualty policy will, at Borrower's option, be payable to Borrower to replace the property subject to the claim, provided that any such replacement property shall be deemed Collateral in which Bank has been granted a first priority security interest, provided that, if an Event of Default has occurred and is continuing, all proceeds payable under any such policy shall, at Bank's option, be payable to Bank to be applied on account of the Obligations.

6.6 Primary Depository. Subject to the provisions of Sections 3.1(k) and 3.2(b), Borrower within thirty (30) days of the Closing Date shall maintain all of its depository and operating accounts with Bank and all of its investment accounts with Bank or Bank's Affiliates; provided that, prior to maintaining any investment accounts with Bank's Affiliates, Borrower, Bank, and any such Affiliate shall have entered into a securities account control agreement with respect to any such investment accounts, in form and substance satisfactory to Bank. Notwithstanding the above, (a) Borrower shall be permitted to maintain Cash at Bank of America, N.A., provided that (i) the total aggregate amount of Cash maintained by Borrower at Bank of America, N.A. does not exceed $5,000,000 at any time and (ii) Borrower at all times maintains a balance of Cash at Bank of not less than 120% of Borrower's Indebtedness to Bank, and (b) Borrower shall be permitted to maintain Cash in one or more other accounts outside of Bank, provided that the total aggregate amount of Cash maintained in such accounts does not exceed $20,000 at any time.

6.7 Consent of Inbound Licensors. Prior to entering into or becoming bound by any material inbound license or agreement, Borrower shall: (a) provide written notice to Bank of the material terms of such license or agreement with a description of its likely impact on Borrower's business or financial condition; and (b) in good faith use commercially reasonable efforts to obtain the consent of, or waiver by, any Person whose consent or waiver is necessary for Borrower's interest in such licenses or contract rights to be deemed Collateral and for Bank to have a security interest in it that might otherwise be restricted by the terms of the applicable license or agreement, whether now existing or entered into in the future, provided, however, that the failure to obtain any such consent or waiver shall not constitute a default under this Agreement.

6.8 Creation/Acquisition of Subsidiaries. In the event that Borrower or any Subsidiary of Borrower creates or acquires any Subsidiary, Borrower or such Subsidiary shall promptly notify Bank of such creation or acquisition, and Borrower or such Subsidiary shall take all actions reasonably requested by Bank to achieve any of the following with respect to such "New Subsidiary" (defined as a Subsidiary formed after the date hereof during the term of this Agreement): (a) to cause New Subsidiary to become either a co-Borrower hereunder, if such New Subsidiary is organized under the laws of the United States, or a secured guarantor with respect to the Obligations; and (b) to grant and pledge to Bank a perfected security interest in 100% of the stock, units or other evidence of ownership held by Borrower or its Subsidiaries of any such New Subsidiary which is organized under the laws of the United States, and 65% of the stock, units or other evidence of ownership held by Borrower or its Subsidiaries of any such New Subsidiary which is not organized under the laws of the United States.

6.9 Further Assurances. At any time and from time to time Borrower shall execute and deliver such further instruments and take such further action as may reasonably be requested by Bank to effect the purposes of this Agreement.

7. NEGATIVE COVENANTS.

Borrower covenants and agrees that, so long as any credit hereunder shall be available and until the outstanding Obligations (other than inchoate indemnity obligations) are paid in full or for so long as Bank may have any commitment to make any Credit Extensions, Borrower will

not do any of the following without Bank's prior written consent, which shall not be unreasonably withheld:

7.1 Dispositions. Convey, sell, lease, license, transfer or otherwise dispose of (collectively, to "Transfer"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, or move cash balances on deposit with Bank to accounts opened at another financial institution, other than Permitted Transfers.

7.2 Change in Name, Location, Executive Office, or Executive Management; Change in Business; Change in Fiscal Year; Change in Control. Change its name or the state of Borrower's formation or relocate its chief executive office without thirty (30) days' prior written notification to Bank; replace or suffer the departure of its chief executive officer or chief financial officer without delivering written notification to Bank within 10 days; fail to appoint an interim replacement or fill a vacancy in the position of chief executive officer or chief financial officer for more than thirty (30) consecutive days; suffer a change on its board of directors which results in the failure of at least one partner of either New Enterprise Associates or Canaan Partners or their respective Affiliates to serve as a voting member, or suffer the resignation of one or more directors from its board of directors in anticipation of Borrower's insolvency, in either case without the prior written consent of Bank

which may be withheld in Bank's sole discretion take action to liquidate, wind up or otherwise cease to conduct business in the ordinary course; engage in any business, or permit any of its Subsidiaries to engage in any business, other than as reasonably related or incidental to the businesses currently engaged in by Borrower; change its fiscal year end; have a Change in Control.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with or into any other business organization (other than mergers or consolidations of a Subsidiary into another Subsidiary or into Borrower) or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person except where (a) each of the following conditions is applicable: (i) the consideration paid in connection with such transactions (including assumption of liabilities) does not in the aggregate exceed $250,000 during any fiscal year, (ii) no Event of Default has occurred, is continuing or would exist after giving effect to such transactions, (iii) such transactions do not result in a Change in Control, and (iv) Borrower is the surviving entity; or (b) the Obligations are repaid in full concurrently with the closing of any merger or consolidation of Borrower in which Borrower is not the surviving entity; provided, however, that Borrower shall not, without Bank's prior written consent, enter into any binding contractual arrangement with any Person to attempt to facilitate a merger or acquisition of Borrower, unless (i) no Event of Default exists when such agreement is entered into by Borrower, (ii) such agreement does not give such Person the right to claim any fee, payment or damages from any parties, other than from Borrower or Borrower's investors, in connection with a sale of Borrower's stock or assets pursuant to or resulting from an assignment for the benefit of creditors, an asset turnover to Borrower's creditors (including, without limitation, Bank), foreclosure, bankruptcy or similar liquidation, and (iii) Borrower notifies Bank in advance of entering into such an agreement (provided that, the failure to give such notification shall not be deemed a material breach of this Agreement).

7.4 Indebtedness. Create, incur, assume, guarantee or be or remain liable with respect to any Indebtedness, or permit any Subsidiary so to do, other than Permitted Indebtedness, or prepay any Indebtedness or take any actions which impose on Borrower an obligation to prepay any Indebtedness, except Indebtedness to Bank.

7.5 Encumbrances. Create, incur, assume or allow any Lien with respect to its property, or assign or otherwise convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries so to do, except for Permitted Liens, or covenant to any other Person (other than (a) the licensors of in-licensed property with respect to such property or (b) the lessors of specific equipment or lenders financing specific equipment with respect to such leased or financed equipment) that Borrower in the future will refrain from creating, incurring, assuming or allowing any Lien with respect to any of Borrower's property.

7.6 Distributions. Pay any dividends or make any other distribution or payment on account of or in redemption, retirement or purchase of any capital stock, except that Borrower may (a) repurchase the stock of former employees or directors pursuant to stock repurchase agreements in an aggregate amount not to exceed $250,000 in any fiscal year, so long as an Event of Default does not exist prior to such repurchase or would not exist after giving effect to such repurchase, and (b) repurchase the stock of former employees or directors pursuant to stock repurchase agreements in any amount where the consideration for the repurchase is the cancellation of indebtedness owed by such former employees or directors to Borrower regardless of whether an Event of Default exists.

7.7 Investments. Directly or indirectly acquire or own an Investment in, or make any Investment in or to any Person, or permit any of its Subsidiaries so to do, other than Permitted Investments, or maintain or invest any of its investment property with a Person other than Bank or permit any Subsidiary to do so unless such Person has entered into a control agreement with Bank, in form and substance satisfactory to Bank, or suffer or permit any Subsidiary to be a party to, or be bound by, an agreement that restricts such Subsidiary from paying dividends or otherwise distributing property to Borrower.

7.8 Capitalized Expenditures. Make Capitalized Expenditures in excess of $500,000 in the aggregate in any fiscal year of Borrower.

7.9 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower except for (a) transactions that are in the ordinary course of Borrower's business and (b) bona-fide equity financings with existing investors that do not result in a Change in Control, in each case upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's-length transaction with a non-affiliated Person.

7.10 Subordinated Debt. Make any payment in respect of any Subordinated Debt, or permit any of its Subsidiaries to make any such payment, except in compliance with the terms of such Subordinated Debt, or amend any provision affecting Bank's rights contained in any documentation relating to the Subordinated Debt without Bank's prior written consent.

7.11 Inventory and Equipment. Store the Inventory or the Equipment of a book value in excess of $100,000 with a bailee, warehouseman, collocation facility or similar third party unless the third party has been notified of Bank's security interest and Bank (a) has received an acknowledgment from the third party that it is holding or will hold the Inventory or Equipment for Bank's benefit or (b) is in possession of the warehouse receipt, where negotiable, covering such Inventory or Equipment. Except for Inventory sold in the ordinary course of business and for movable items of personal property having an aggregate book value not in excess of $100,000, and, except for such other locations as Bank may approve in writing, Borrower shall keep the Inventory and Equipment only at the location set forth in Article 10 and such other locations of which Borrower gives Bank prior written notice and as to which Bank is able to take such actions as may be necessary to perfect its security interest or to obtain a bailee's acknowledgment of Bank's rights in the Collateral.

7.12 No Investment Company; Margin Regulation. Become or be controlled by an "investment company," within the meaning of the Investment Company Act of 1940, or become principally engaged in, or undertake as one of its important activities, the business of extending credit for the purpose of purchasing or carrying margin stock or use the proceeds of any Credit Extension for such purpose.

8. EVENTS OF DEFAULT.

Any one or more of the following events shall constitute an Event of Default by Borrower under this Agreement:

8.1 Payment Default. If Borrower fails to pay any of the Obligations when due;

8.2 Covenant Default.

(a) If Borrower fails to perform any obligation under Section 6.2 (financial reporting), 6.4 (taxes), 6.5 (insurance) or 6.6 (primary accounts) or violates any of the covenants contained in Article 7 of this Agreement; or

(b) If Borrower fails or neglects to perform or observe any other material term, provision, condition, covenant contained in this Agreement, in any of the Loan Documents, or in any other present or future agreement between Borrower and Bank and as to any default under such other term, provision, condition or covenant that can be cured, has failed to cure such default within ten (10) days after Borrower receives notice thereof or any officer of Borrower becomes aware thereof; provided, however, that, if the default cannot by its nature be cured within the ten (10)-day period or cannot after diligent attempts by Borrower be cured within such ten (10)-day period and such default is likely to be cured within a reasonable time, then Borrower shall have an additional reasonable period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to have cured such default shall not be deemed an Event of Default but no Credit Extensions will be made;

8.3 Material Adverse Change. If there occurs any circumstance or any circumstances which would reasonably be expected to have a Material Adverse Effect;

8.4 Attachment. If any material portion of Borrower's assets is attached, seized, subjected to a writ or distress warrant, or is levied upon, or comes into the possession of any trustee, receiver or Person acting in a similar capacity and such attachment, seizure, writ or distress warrant or levy has not been removed, discharged or rescinded within ten (10) days, or if Borrower is enjoined, restrained or in any way prevented by court order from continuing to conduct all or any material part of its business affairs, or if a judgment or other claim becomes a lien or encumbrance upon any material portion of Borrower's assets, or if a notice of lien, levy or assessment is filed of record with respect to any material portion of Borrower's assets by the United States Government, or any department, agency or instrumentality thereof, or by any state, county, municipal or governmental agency, and the same is not paid within ten (10) days after Borrower receives notice thereof, provided that none of the foregoing shall constitute an Event of Default where such action or event is stayed or an adequate bond has been posted pending a good faith contest by Borrower (provided that no Credit Extensions will be made during such cure period);

8.5 Insolvency. If Borrower becomes insolvent, or if an Insolvency Proceeding is commenced by Borrower, or if an Insolvency Proceeding is commenced against Borrower and is not dismissed or stayed within thirty (30) days (provided that no Credit Extensions will be made prior to the dismissal of such Insolvency Proceeding);

8.6 Other Agreements. If there is a default or other failure to perform in any agreement to which Borrower is a party with a third party or parties (a) resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of $250,000, (b) in connection with any lease of real property, or (c) that would

reasonably be expected to have a Material Adverse Effect;

8.7 Judgments. If a final, uninsured judgment or judgments for the payment of money in an amount, individually or in the aggregate, of at least $250,000 shall be rendered against Borrower and shall remain unsatisfied and unstayed for a period of ten (10) days (provided that no Credit Extensions will be made prior to the satisfaction or stay of the judgment); or

8.8 Misrepresentations. If any material misrepresentation or material misstatement exists now or hereafter in any warranty or representation set forth herein or in any certificate delivered to Bank by any Responsible Officer pursuant to this Agreement or to induce Bank to enter into this Agreement or any other Loan Document.

9. BANK'S RIGHTS AND REMEDIES.

9.1 Rights and Remedies. Upon the occurrence and during the continuance of an Event of Default, Bank may, at its election, without notice of its election and without demand, do any one or more of the following, all of which are authorized by Borrower:

(a) Declare all Obligations, whether evidenced by this Agreement, by any of the other Loan Documents, or otherwise, immediately due and payable (provided that, upon the occurrence of an Event of Default described in Section 8.5 (insolvency), all Obligations shall become immediately due and payable without any action by Bank);

(b) Cease advancing money or extending credit to or for the benefit of Borrower under this Agreement or under any other agreement between Borrower and Bank;

(c) Settle or adjust disputes and claims directly with account debtors for amounts, upon terms and in whatever order that Bank reasonably considers advisable;

(d) Make such payments and do such acts as Bank considers necessary or reasonable to protect its security interest in the Collateral. Borrower agrees to assemble the Collateral if Bank so requires and to make the Collateral available to Bank as Bank may designate. Borrower authorizes Bank to enter the premises where the Collateral is located, to take and maintain possession of the Collateral, or any part of it, and to pay, purchase, contest, or compromise any encumbrance, charge or lien which in Bank's determination appears to be prior or superior to its security interest and to pay all expenses incurred in connection therewith. With respect to any of Borrower's owned premises, Borrower hereby grants Bank a license to enter into possession of such premises and to occupy the same, without charge, in order to exercise any of Bank's rights or remedies provided herein, at law, in equity or otherwise;

(e) Place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any control agreement or similar agreements providing control of any Collateral;

(f) Set off and apply to the Obligations any and all (i) balances and deposits of Borrower held by Bank, and (ii) indebtedness at any time owing to or for the credit or the account of Borrower held by Bank;

(g) Ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale and sell (in the manner provided for herein) the Collateral. Bank is hereby granted a license or other right, solely pursuant to the provisions of this Section 9.1, to use, without charge, Borrower's labels, Patents, Copyrights, rights of use of any name, trade secrets, trade names, Trademarks, service marks and advertising matter, or any property of a similar nature, as it pertains to the Collateral, in completing production of, advertising for sale and selling any Collateral, and, in connection with Bank's exercise of its rights under this Section 9.1, Borrower's rights under all licenses and all franchise agreements shall inure to Bank's benefit;

(h) Sell the Collateral at either a public or private sale, or both, by way of one or more contracts or transactions, for cash or on terms, in such manner and at such places (including Borrower's premises) as Bank determines is commercially reasonable, and apply any proceeds to the Obligations in whatever manner or order Bank deems appropriate. Bank may sell the Collateral without giving any warranties as to the Collateral. Bank may specifically disclaim any warranties of title or the like. This procedure will not be considered adversely to affect the commercial reasonableness of any sale of the Collateral. If Bank sells any of the Collateral upon credit, Borrower will be credited only with payments actually made by the purchaser, received by Bank and applied to the indebtedness of the purchaser. If the purchaser fails to pay for the Collateral, Bank may resell the Collateral and Borrower shall be credited with the proceeds of the sale;

(i) Credit bid and purchase at any public sale;

(j) Apply for the appointment of a receiver, trustee, liquidator or conservator of the Collateral, without notice and without regard to the adequacy of the security for the Obligations and without regard to the solvency of Borrower, any guarantor or any other Person liable for any of the Obligations; and

(k) Any deficiency that exists after disposition of the Collateral as provided above will be paid immediately by Borrower.

Bank may comply with any applicable state or federal law requirements in connection with a disposition of the Collateral, and compliance will not be considered adversely to affect the commercial reasonableness of any sale of the Collateral.

9.2 Power of Attorney. Effective only upon the occurrence and during the continuance of an Event of Default, Borrower hereby irrevocably appoints Bank (and any of Bank's designated officers or employees) as Borrower's true and lawful attorney to: (a) send requests for verification of Accounts or notify account debtors of Bank's security interest in the Accounts; (b) endorse Borrower's name on any checks or other forms of payment or security that may come into Bank's possession; (c) sign Borrower's name on any invoice or bill of lading relating to any Account, drafts against account debtors, schedules and assignments of Accounts, verifications of Accounts and notices to account debtors; (d) dispose of any Collateral; (e) make, settle and adjust all claims under and decisions with respect to Borrower's policies of insurance; (f) settle and adjust disputes and claims respecting the accounts directly with account debtors, for amounts and upon terms which Bank determines to be reasonable; and (g) file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Collateral; provided that Bank may exercise such power of attorney to sign the name of Borrower on any of the documents described in clause (g) above, regardless of whether an Event of Default has occurred. The appointment of Bank as Borrower's attorney in fact, and each and every one of Bank's rights and powers, being coupled with an interest, is irrevocable until all of the Obligations (other than inchoate indemnity obligations) have been fully repaid and performed and Bank's obligation to provide advances hereunder is terminated.

9.3 Accounts Collection. At any time after the occurrence and during the continuation of an Event of Default, (a) Bank may notify any Person owing funds to Borrower of Bank's security interest in such funds and verify the amount of such Account and (b) Borrower shall collect all amounts owing to Borrower for Bank, receive in trust all payments as Bank's trustee, and immediately deliver such payments to Bank in their original form as received from the account debtor, with proper endorsements for deposit.

9.4 Bank Expenses. If Borrower fails to pay any amounts or furnish any required proof of payment due to third persons or entities, as required under the terms of this Agreement, then Bank may do any or all of the following after reasonable notice to Borrower: (a) make payment of the same or any part thereof; or (b) obtain and maintain insurance policies of the type discussed in Section 6.5 of this Agreement, and take any action with respect to such policies as Bank deems prudent. Any amounts so paid or deposited by Bank shall constitute Bank Expenses, shall be immediately due and payable, and shall bear interest at the then

applicable rate hereinabove provided, and shall be secured by the Collateral. Any payments made by Bank shall not constitute an agreement by Bank to make similar payments in the future or a waiver by Bank of any Event of Default under this Agreement.

9.5 Bank's Liability for Collateral. Bank has no obligation to clean up or otherwise prepare the Collateral for sale. All risk of loss, damage or destruction of the Collateral shall be borne by Borrower.

9.6 No Obligation to Pursue Others. Bank has no obligation to attempt to satisfy the Obligations by collecting them from any other Person liable for them and Bank may release, modify or waive any collateral provided by any other Person to secure any of the Obligations, all without affecting Bank's rights against Borrower. Borrower waives any right it may have to require Bank to pursue any other Person for any of the Obligations.

9.7 Remedies Cumulative. Bank's rights and remedies under this Agreement, the Loan Documents and all other agreements shall be cumulative. Bank shall have all other rights and remedies not inconsistent herewith as provided under the Code, by law or in equity. No exercise by Bank of one right or remedy shall be deemed an election, and no waiver by Bank of any Event of Default on Borrower's part shall be deemed a continuing waiver. No delay by Bank shall constitute a waiver, election or acquiescence by it. No waiver by Bank shall be effective unless made in a written

document signed on behalf of Bank and then shall be effective only in the specific instance and for the specific purpose for which it was given. Borrower expressly agrees that this Section 9.7 may not be waived or modified by Bank by course of performance, conduct, estoppel or otherwise.

9.8 Demand; Protest. Except as otherwise provided in this Agreement, Borrower waives demand, protest, notice of protest, notice of default or dishonor, notice of payment and nonpayment and any other notices relating to the Obligations.

10. NOTICES.

Unless otherwise provided in this Agreement, all notices or demands by any party relating to this Agreement or any other agreement entered into in connection herewith shall be in writing and (except for financial statements and other informational documents which may be sent by first-class mail, postage prepaid) shall be personally delivered or sent by a recognized overnight delivery service, certified mail, postage prepaid, return receipt requested, or by telefacsimile to Borrower or to Bank, as the case may be, at its addresses set forth below:

If to Borrower:

LIQUIDIA TECHNOLOGIES, INC.
419 Davis Drive, Suite 100
Morrisville, North Carolina 27560-6837
Attn: Timothy Albury
FAX: (919) 328-4402

If to Bank:

Pacific Western Bank
406 Blackwell Street, Suite 240
Durham, North Carolina 27701
Attn: Loan Operations Manager
FAX: (919) 314-3080

with a copy to:

Pacific Western Bank
406 Blackwell Street, Suite 240
Durham, North Carolina 27701
Attn: Mara Huntington
FAX: (919) 314-3090

The parties hereto may change the address at which they are to receive notices hereunder by notice in writing in the foregoing manner given to the other.

11. CHOICE OF LAW AND VENUE; JURY TRIAL WAIVER.

This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of North Carolina, without regard to principles of conflicts of law. Jurisdiction shall lie in the State of North Carolina. All disputes, controversies, claims, actions and similar proceedings arising with respect to Borrower's account or any related agreement or transaction shall be brought in the General Court of Justice of North Carolina sitting in Durham County, North Carolina or the United States District Court for the Middle District of North Carolina, except as provided below with respect to arbitration of such matters. BANK AND BORROWER EACH ACKNOWLEDGE THAT THE RIGHT TO TRIAL BY JURY IS A CONSTITUTIONAL ONE, BUT THAT IT MAY BE WAIVED. EACH OF THEM, AFTER CONSULTING OR HAVING HAD THE OPPORTUNITY TO CONSULT, WITH COUNSEL OF THEIR CHOICE, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ANY RIGHT ANY OF THEM MAY HAVE TO A TRIAL BY JURY IN ANY LITIGATION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY RELATED INSTRUMENT OR LOAN DOCUMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT OR ANY COURSE OF CONDUCT, DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTION OF ANY OF THEM. THESE PROVISIONS SHALL NOT BE DEEMED TO HAVE BEEN MODIFIED IN ANY RESPECT OR RELINQUISHED BY BANK OR BORROWER, EXCEPT BY A WRITTEN INSTRUMENT EXECUTED BY EACH OF THEM. If the jury waiver set forth in this Article 11 is not enforceable, then any dispute, controversy, claim, action or similar proceeding arising out of or relating to this Agreement, the Loan Documents or any of the transactions contemplated therein shall be settled by final and binding arbitration held in Durham County, North Carolina in accordance with the then current Commercial Arbitration Rules of the American Arbitration Association by one arbitrator appointed in accordance with those rules. The arbitrator shall apply North Carolina law to the resolution of any dispute, without reference to rules of conflicts of law or rules of statutory arbitration. Judgment upon any award resulting from arbitration may be entered into and enforced by any state or federal court having jurisdiction thereof. Notwithstanding the foregoing, the parties may apply to any court of competent jurisdiction for preliminary or interim equitable relief, or to compel arbitration in accordance with this Article

11. The costs and expenses of the arbitration, including without limitation, the arbitrator's fees and expert witness fees and reasonable attorneys' fees, incurred by the parties to the arbitration may be awarded to the prevailing party, in the discretion of the arbitrator, or may be apportioned between the parties in any manner deemed appropriate by the arbitrator. Unless and until the arbitrator decides that one party is to pay for all (or a share) of such costs and expenses, both parties shall share equally in the payment of the arbitrator's fees as and when billed by the arbitrator.

12. GENERAL PROVISIONS.

12.1 Successors and Assigns. This Agreement shall bind and inure to the benefit of the respective successors and permitted assigns of each of the parties and shall bind all Persons who become bound as a debtor to this Agreement; provided, however, that neither this Agreement nor any rights hereunder may be assigned by Borrower without Bank's prior written consent, which consent may be granted or withheld in Bank's sole discretion. Bank shall have the right without the consent of or notice to Borrower to sell, assign, transfer, negotiate or grant participation in all or any part of, or any interest in, Bank's obligations, rights and benefits hereunder.

12.2 Indemnification. Borrower shall defend, indemnify and hold harmless Bank and its officers, employees, and agents (each, an "Indemnified Party") against: (a) all obligations, demands, claims and liabilities claimed or asserted by any other party in connection with the transactions contemplated by this Agreement (each, a "Claim"); and (b) all losses or Bank Expenses in any way suffered, incurred or paid by Bank, its officers, employees and agents as a result of or in any way arising out of, following or consequential to transactions between Bank and Borrower whether under this Agreement or otherwise (including without limitation reasonable attorneys' fees and expenses), except for losses, Claims and Bank Expenses caused by an Indemnified Party's gross negligence or willful misconduct.

12.3 Time of Essence. Time is of the essence for the performance of all obligations set forth in this Agreement.

12.4 Severability of Provisions. Each provision of this Agreement shall be severable from every other provision of this Agreement for the purpose of determining the legal enforceability of any specific provision.

12.5 Amendments in Writing, Integration. All amendments to or terminations of this Agreement or the other Loan Documents must be in writing. All prior agreements, understandings, representations, warranties and negotiations between the parties hereto with respect to the subject matter of this Agreement and the other Loan Documents, if any, are merged into this Agreement and the Loan Documents.

12.6 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original and all of which, when taken together, shall constitute but one and the same Agreement. Executed copies of the signature pages of this Agreement sent by facsimile or transmitted electronically in Portable Document Format, or any

similar format, shall be treated as originals, fully binding and with full legal force and effect, and the parties waive any rights they may have to object to such treatment.

12.7 Survival. All covenants, representations and warranties made in this Agreement shall continue in full force and effect so long as any Obligations remain outstanding or Bank has any obligation to make any Credit Extension to Borrower. The obligations of Borrower to indemnify Bank with respect to the expenses, damages, losses, costs and liabilities described in Section 12.2 shall survive until all applicable statute of limitations periods with respect to actions that may be brought against Bank have run.

12.8 Confidentiality. In handling any confidential information, Bank and Borrower and all employees and agents of each such party shall exercise the same degree of care that such party exercises with respect to its own proprietary information of the same types to maintain the confidentiality of any non-public information thereby received or received pursuant to this Agreement except that disclosure of such information may be made (a) in the case of Bank, to the subsidiaries or Affiliates of Bank or Borrower in connection with their present or prospective business relations with Borrower, (b) in the case of Bank, to prospective transferees or purchasers of any interest in the Credit Extensions, provided that they have entered into a comparable confidentiality agreement in favor of Borrower and have delivered a copy to Borrower, (c) as required by law, regulations, rule or order, subpoena, judicial order or similar order, (d) in the case of Bank, as may be required in connection with the examination, audit or similar investigation of Bank and (e) as Bank may determine in connection with the enforcement of any remedies hereunder. Confidential information hereunder shall not include information that either: (x) is in the public domain or in the knowledge or possession of the receiving party when disclosed to such party, or becomes part of the public domain after disclosure to such receiving party through no fault of such receiving party; or (y) is disclosed to such receiving party by a third party, provided that the receiving party does not have actual knowledge that such third party is prohibited from disclosing such information.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first above written.

PACIFIC WESTERN BANK

By: /s/ Lan Zhu
Name: Lan Zhu
Title: AVP

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Timothy Albury
Name: Timothy Albury
Title: CFO

EXHIBIT A

DEFINITIONS

“Accounts” means all presently existing and hereafter arising accounts, contract rights, payment intangibles and all other forms of obligations owing to Borrower arising out of the sale or lease of goods (including, without limitation, the licensing of software and other technology) or the rendering of services by Borrower and any and all credit insurance, guaranties, and other security therefor, as well as all merchandise returned to or reclaimed by Borrower and Borrower’s Books relating to any of the foregoing.

“Affiliate” means, with respect to any Person, any Person that owns or controls directly or indirectly such Person, any Person that controls or is controlled by or is under common control with such Person, and each of such Person’s senior executive officers, directors and general partners.

“Authorized Officer” means someone designated as such in the corporate resolution provided by Borrower to Bank in which this Agreement and the transactions contemplated hereunder are authorized by Borrower’s board of directors. If Borrower provides subsequent corporate resolutions to Bank after the Closing Date, the individual(s) designated as “Authorized Officer(s)” in the most-recently provided resolution shall be the only “Authorized Officers” for purposes of this Agreement.

“Availability End Date” means July 6, 2017.

“Bank Expenses” means all reasonable costs or expenses (including reasonable attorneys’ fees and expenses, whether generated in-house or by outside counsel) incurred in connection with the preparation, negotiation, administration and enforcement of the Loan Documents; reasonable Collateral audit fees; and Bank’s reasonable attorneys’ fees and expenses (whether generated in-house or by outside counsel) incurred in amending, enforcing or defending the Loan Documents (including fees and expenses of appeal), incurred before, during and after an Insolvency Proceeding, whether or not suit is brought.

“Borrower’s Books” means all of Borrower’s books and records including: ledgers; records concerning Borrower’s assets or liabilities, the Collateral, business operations or financial condition; and all computer programs, or tape files, and the equipment containing such information.

“Business Day” means any day that is not a Saturday, Sunday or other day on which banks in the State of North Carolina are authorized or required to close.

“Capitalized Expenditures” means current period unfinanced cash expenditures that are capitalized and amortized over a period of time in accordance with GAAP, including but not limited to capitalized cash expenditures for capital equipment, capitalized manufacturing and labor costs as they relate to inventory and software development.

“Cash” means unrestricted cash and cash equivalents.

“Change in Control” means a transaction other than a bona fide equity financing or series of financings on terms and from investors reasonably acceptable to Bank in which any “person” or “group” (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934) becomes the “beneficial owner” (as defined in Rule 13d-3 under the Securities Exchange Act of 1934), directly or indirectly, of a sufficient number of shares of all classes of stock then outstanding of Borrower ordinarily entitled to vote in the election of directors, empowering such “person” or “group” to elect a majority of the board of directors of Borrower, who did not have such power before such transaction.

“Closing Date” means the date of this Agreement.

“Code” means the North Carolina Uniform Commercial Code as amended or supplemented from time to time.

“Collateral” means the property described on Exhibit B attached hereto and all Negotiable Collateral to the extent not described on Exhibit B, except to the extent any such property (a) is nonassignable by its terms without the consent of the licensor thereof or another party (but only to the extent such prohibition on transfer is enforceable under applicable law, including, without limitation, §25-9-406 and §25-9-408 of the Code), (b) the granting of a security interest which is contrary to applicable law, provided that, upon the cessation of any such restriction or prohibition, such property shall automatically become part of the Collateral, (c) constitutes the capital stock of a controlled foreign corporation (as defined in the IRC), in excess of 65% of the voting power of all classes of capital stock of such controlled foreign corporations entitled to vote, or (d) property (including any attachments, accessions or replacements) that is subject to a Lien that is permitted pursuant to clause (c) of the definition of Permitted Liens, if the grant of a security interest with respect to such property pursuant to this Agreement would be prohibited by the agreement creating such Permitted Lien or would otherwise constitute a default thereunder, provided that such property will be deemed “Collateral” hereunder upon the termination and release of such Permitted Lien.

“Collateral State” means the state where the Collateral is located, which is North Carolina.

“Compliance Certificate” means a compliance certificate, in substantially the form of Exhibit D attached hereto, executed by a Responsible Officer of Borrower.

“Contingent Obligation” means, as applied to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to (a) any indebtedness, lease, dividend, letter of credit or other obligation of another, including, without limitation, any such obligation directly or indirectly guaranteed, endorsed, co-made or discounted or sold with recourse by that Person, or in respect of which that Person is otherwise directly or indirectly liable; (b) any obligations with respect to undrawn letters of credit, corporate credit cards or merchant services issued for the account of that Person; and (c) all obligations arising under any interest rate, currency or commodity swap agreement, interest rate cap agreement, interest rate collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; provided, however, that the term “Contingent Obligation” shall not include endorsements for collection or deposit in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount

equal to the stated or determined amount of the primary obligation in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by such Person in good faith; provided, however, that such amount shall not in any event exceed the maximum amount of the obligations under the guarantee or other support arrangement.

“Copyrights” means any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held.

“Credit Card Line” means a Credit Extension of up to $50,000, to be used exclusively for the provision of Credit Card Services.

“Credit Card Maturity Date” means January 4, 2017.

“Credit Extension” means each Term Loan, the Credit Card Services provided under the Credit Card Line, or any other extension of credit, by Bank to or for the benefit of Borrower hereunder.

“Equipment” means all present and future machinery, equipment, tenant improvements, furniture, fixtures, vehicles, tools, parts and attachments in which Borrower has any interest.

“ERISA” means the Employee Retirement Income Security Act of 1974, as amended, and the regulations thereunder.

“Event of Default” has the meaning assigned in Article 8.

“GAAP” means generally accepted accounting principles, consistently applied, as in effect from time to time in the United States.

“Indebtedness” means (a) all indebtedness for borrowed money or the deferred purchase price of property or services, including without limitation reimbursement and other obligations with respect to surety bonds and letters of credit, (b) all obligations evidenced by notes, bonds, debentures or similar instruments, (c) all capital lease obligations, and (d) all Contingent Obligations, including but not limited to any sublimit contained herein.

“Insolvency Proceeding” means any proceeding commenced by or against any Person or entity under any provision of the United States Bankruptcy Code, as amended, or under any other bankruptcy or insolvency law, including assignments for the benefit of creditors, formal or informal moratoria, compositions, extension generally with its creditors, or proceedings seeking reorganization, arrangement or other relief.

“Intellectual Property” means all of Borrower’s right, title, and interest in and to the following:

(a) Copyrights, Patents and Trademarks;

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights which may be available to Borrower now or hereafter existing, created, acquired or held;

(d) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(f) All amendments, renewals and extensions of any of the Copyrights, Patents or Trademarks; and

(g) All other intellectual property.

“Inventory” means all present and future inventory in which Borrower has any interest.

“Investment” means any beneficial ownership of (including stock, partnership or limited liability company interest or other securities) any Person, or any loan, advance or capital contribution to any Person.

“Investment Agreement” means, collectively, Borrower’s stock purchase and other agreement(s) pursuant to which Borrower most recently issued its preferred stock.

“IRC” means the Internal Revenue Code of 1986, as amended, and the regulations thereunder.

“Lien” means any mortgage, lien, deed of trust, charge, pledge, security interest or other encumbrance.

“Liquidity Event” means (a) any sale, license or other disposition of all or substantially all of the assets (including Intellectual Property) of Borrower, (b) any reorganization, consolidation, merger or sale of the voting securities of Borrower or any other transaction (i) where the holders of Borrower’s securities before the transaction beneficially own less than 50% of the outstanding voting securities of the surviving entity after the transaction or (ii) that results in a Change in Control, or (c) an initial public offering of Borrower’s equity securities; provided that a Liquidity Event shall exclude any issuance of equity securities by the Company for purposes of raising working capital through a bona fide equity financing transaction where the consideration received by the Company is cash, the cancellation or conversion of indebtedness, or a combination of both.

“Loan Documents” means, collectively, this Agreement, any note or notes executed by Borrower, and any other document, instrument or agreement entered into in connection with this Agreement, all as amended or extended from time to time.

“Material Adverse Effect” means a material adverse effect on (a) the operations, business or financial condition of Borrower and its Subsidiaries taken as a whole, (b) the ability of Borrower to repay the Obligations or otherwise perform its obligations under the Loan Documents, or (c)

Borrower’s interest in, or the value, perfection or priority of Bank’s security interest in the Collateral.

“Negotiable Collateral” means all of Borrower’s present and future letters of credit of which it is a beneficiary, drafts, instruments (including promissory notes), securities, documents of title, and chattel paper, and Borrower’s Books relating to any of the foregoing.

“Obligations” means all debt, principal, interest, Bank Expenses and other amounts owed to Bank by Borrower pursuant to this Agreement or any other agreement, whether absolute or contingent, due or to become due, now existing or hereafter arising, including any interest that accrues after the commencement of an Insolvency Proceeding and including any debt, liability or obligation owing from Borrower to others that Bank may have obtained by assignment or otherwise.

“Patents” means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

“Periodic Payments” means all installments or similar recurring payments that Borrower may now or hereafter become obligated to pay to Bank pursuant to the terms and provisions of any instrument or agreement now or hereafter in existence between Borrower and Bank.

"Permitted Indebtedness" means:

(a) Indebtedness of Borrower in favor of Bank arising under this Agreement or any other Loan Document;

(b) Indebtedness existing on the Closing Date and disclosed in the Schedule;

(c) Indebtedness not to exceed $250,000 in the aggregate at any time secured by a lien described in clause (c) of the defined term "Permitted Liens," provided that such Indebtedness does not exceed at the time it is incurred the lesser of the cost or fair market value of the property financed with such Indebtedness;

(d) Subordinated Debt;

(e) Indebtedness to trade creditors incurred in the ordinary course of business; and

(f) Extensions, refinancings and renewals of any items of Permitted Indebtedness, provided that the principal amount is not increased or the terms modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"Permitted Investments" means:

(a) Investments existing on the Closing Date disclosed in the Schedule;

(b) (i) Marketable direct obligations issued or unconditionally guaranteed by the United States of America or any agency or any state thereof maturing within one year from the date of

acquisition thereof, (ii) commercial paper maturing no more than one year from the date of creation thereof and currently having rating of at least A-2 or P-2 from either Standard & Poor's Corporation or Moody's Investors Service, (iii) Bank's certificates of deposit maturing no more than one year from the date of investment therein, (iv) Bank's money market accounts, (v) Investments in regular deposit or checking accounts held with Bank or as otherwise permitted by, and subject to the terms and conditions of, Section 6.6 of this Agreement, and (vi) Investments consistent with any investment policy adopted by Borrower's board of directors;

(c) Investments accepted in connection with Permitted Transfers;

(d) Investments of Subsidiaries in or to other Subsidiaries or Borrower and Investments by Borrower in Subsidiaries not to exceed $250,000 in the aggregate in any fiscal year;

(e) Investments not to exceed $250,000 outstanding in the aggregate at any time consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plan agreements approved by Borrower's board of directors;

(f) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of Borrower's business;

(g) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions to, customers and suppliers who are not Affiliates, in the ordinary course of business, provided that this subparagraph (g) shall not apply to Investments of Borrower in any Subsidiary;

(h) Joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of the non-exclusive licensing of technology, the development of technology or the providing of technical support, provided that any cash Investments by Borrower do not exceed $250,000 in the aggregate in any fiscal year; and

(i) Investments permitted under Section 7.3.

"Permitted Liens" means the following:

(a) Any Liens existing on the Closing Date and disclosed in the Schedule (excluding Liens to be satisfied with the proceeds of the Credit Extensions) or arising under this Agreement, the other Loan Documents or any other agreement in favor of Bank;

(b) Liens for taxes, fees, assessments or other governmental charges or levies, either not delinquent or being contested in good faith by appropriate proceedings and for which Borrower maintains adequate reserves;

(c) Liens not to exceed $250,000 in the aggregate at any time (i) upon or in any Equipment (other than Equipment financed by a Credit Extension) acquired or held by Borrower or any of its Subsidiaries to secure the purchase price of such Equipment or indebtedness incurred solely for the purpose of financing the acquisition or lease of such Equipment, or (ii) existing on such

Equipment at the time of its acquisition, in each case provided that the Lien is confined solely to the property so acquired and improvements thereon, and the proceeds of such Equipment;

(d) Liens incurred in connection with the extension, renewal or refinancing of the indebtedness secured by Liens of the type described in clauses (a) through (c) above, provided that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness being extended, renewed or refinanced does not increase;

(e) Liens securing Subordinated Debt;

(f) Liens arising from judgments, decrees or attachments in circumstances not constituting an Event of Default under Section 8.4 (attachment) or 8.7 (judgments);

(g) Liens to secure the payment of worker's compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA, provided that the aggregate of all such Liens shall not exceed $250,000 at any time; and

(h) Leases or subleases of real property granted in the ordinary course of business (or, if referring to another Person, in the ordinary course of such Person's business), and leases, subleases, non-exclusive licenses of personal property (other than Intellectual Property) granted in the ordinary course of business which (i) do not interfere in any material respect with the business of Borrowers and their Subsidiaries, (ii) do not secure any Indebtedness and (iii) are not otherwise prohibited by this Agreement.

"Permitted Transfer" means the conveyance, sale, lease, license, transfer or disposition by Borrower or any Subsidiary of:

(a) Inventory in the ordinary course of business;

(b) licenses and similar arrangements for the use of the property (including the Intellectual Property) of Borrower or its Subsidiaries in the ordinary course of business;

(c) worn-out, surplus or obsolete Equipment;

(d) grants of security interests and other Liens that constitute Permitted Liens; and

(e) other assets of Borrower or its Subsidiaries that do not in the aggregate exceed $250,000 during any fiscal year.

"Person" means any individual, sole proprietorship, partnership, limited liability company, joint venture, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or governmental agency.

"Responsible Officer" means each of the Chief Executive Officer, the Chief Operating Officer, the Chief Financial Officer, Vice President of Finance and the Controller of Borrower, as well as

any other officer or employee identified as an Authorized Officer in the corporate resolution delivered by Borrower to Bank in connection with this Agreement.

"Schedule" means the schedule of exceptions attached hereto and approved by Bank, if any.

"SOS Reports" means the official reports from the Secretaries of State of each Collateral State, the state where Borrower's chief executive office is located, the state of Borrower's formation and other applicable federal, state or local government offices identifying all current security interests filed in the Collateral and Liens of record as of the date of such report.

"Subordinated Debt" means any debt incurred by Borrower that is subordinated in writing to the debt owing by Borrower to Bank on terms reasonably acceptable to Bank (and identified as being such by Borrower and Bank).

"Subsidiary" means any corporation, partnership or limited liability company or joint venture in which (a) any general partnership interest or (b) more than 50% of the stock, limited liability company interest or joint venture of which by the terms thereof ordinary voting power to elect the board of directors, managers or trustees of the entity, at the time as of which any determination is being made, is owned by Borrower, either directly or through an Affiliate.

"Term Loan Maturity Date" means January 6, 2020.

"Trademarks" means any trademark and service mark rights, whether registered or not, applications to register and registrations of the same and like protections and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

DEBTOR **LIQUIDIA TECHNOLOGIES, INC.**

SECURED PARTY: **PACIFIC WESTERN BANK**

EXHIBIT B

COLLATERAL DESCRIPTION ATTACHMENT TO LOAN AND SECURITY AGREEMENT

All personal property of Borrower (herein referred to as "Borrower" or "Debtor") whether presently existing or hereafter created or acquired and wherever located, including, but not limited to:

(a) all accounts (including health-care-insurance receivables), chattel paper (including tangible and electronic chattel paper), deposit accounts, documents (including negotiable documents), equipment (including all accessions and additions thereto), financial assets, general intangibles (including patents, trademarks, copyrights, goodwill, payment intangibles, domain names and software), goods (including fixtures), instruments (including promissory notes), inventory (including all goods held for sale or lease or to be furnished under a contract of service, and including returns and repossessions), investment property (including securities and securities entitlements), letter of credit rights, money and all of Debtor's books and records with respect to any of the foregoing, and the computers and equipment containing said books and records;

(b) any and all cash proceeds and/or noncash proceeds of any of the foregoing, including, without limitation, insurance proceeds, and all supporting obligations and the security therefor or for any right to payment. All terms above have the meanings given to them in the North Carolina Uniform Commercial Code, as amended or supplemented from time to time, including revised Division 9 of the Uniform Commercial Code-Secured Transactions.

Notwithstanding the foregoing, the Collateral shall not include any of the intellectual property, in any medium, of any kind or nature whatsoever, now or hereafter owned or acquired or received by Borrower, or in which Borrower now holds or hereafter acquires or receives any right or interest (collectively, the "Intellectual Property"); provided, however, that the Collateral shall include all accounts and general intangibles that consist of rights to payment and proceeds from the sale, licensing or disposition of all or any part, or rights in, the foregoing (the "Rights to Payment").

Notwithstanding the foregoing, if a judicial authority (including a U.S. Bankruptcy Court) holds that a security interest in the underlying Intellectual Property is necessary to have a security interest in the Rights to Payment, then the Collateral shall automatically and effective as of January 6, 2016, include the Intellectual Property to the extent and only to the extent necessary to permit perfection of Bank's security interest in the Rights to Payment, and further provided, however, that Bank's enforcement rights with respect to any security interest in the Intellectual Property shall be absolutely limited to the Rights to Payment only, and Bank shall have no recourse whatsoever with respect to the underlying Intellectual Property.

EXHIBIT C
LOAN ADVANCE / PAYDOWN REQUEST FORM

[Please refer to New Borrower Kit]

EXHIBIT D
COMPLIANCE CERTIFICATE

[Please refer to New Borrower Kit]

SCHEDULE OF EXCEPTIONS

Permitted Indebtedness (Exhibit A) — See attached.

Permitted Investments (Exhibit A) — None.

Permitted Liens (Exhibit A) — See attached.

Intellectual Property (Section 5.4) — See attached.

Prior Names (Section 5.5) — None.

Litigation (Section 5.6) — None.

Inbound Licenses (Section 5.12) — See attached.

Exhibit A

Permitted Indebtedness

EXHIBIT A

PERMITTED INDEBTEDNESS

See attached schedule "LTI Master Lease Schedule" for summary of leases in place,

Borrower is indebted to the University of North Carolina at Chapel Hill in the amount of $600,000. Borrower represents and warrants to Bank that such Indebtedness is unsecured and is not evidenced by a promissory note.

LTI Master Lease Schedule

Internal Account No.	Financing Company	Lendor Account No/Lease No	Financed Amount	Payment Amount	No Of Payments	Effective Date	Beginning Date	Ending Date
01.000.3201.00001	Lenovo Financial Services	908-0004241.000	$ 19,947.09	$ 464.85	48	09/11/13	10/02/13	09/02/17
01.000.3201.00003	DeLage	100-10042135	$ 11,878.75	$ 388.24	36	03/17/14	05/28/14	04/28/17
01.000.3201.00004	DeLage	100-10052141	$ 80,123.40	$ 2,616.48	36	07/17/14	09/15/14	08/15/17
01.000.3201.00005	Bryn Mawr	(PARTNERS15074)/89590	$ 21,492.00	$ 606.53	48	11/02/14	11/02/14	10/02/18
01.000.3201.00006	Wells Fargo	301-0160339-001	$ 11,500.00	$ 395.87	36	01/31/14	02/01/14	01/01/17
01.000.3201.00007	Quantum Analytics	795817	$ 37,196.00	$ 1,699.88	24	07/30/14	07/31/14	06/30/16
01.000.3201.00008	Dell Financial Services	001-8745421-002	$ 13,418.28	$ 299.83	60	02/01/15	12/30/14	11/30/19
01.000.3201.00009	Royal Bank of America	LTI112(224963)	$ 50,625.00	$ 1,610.00	36	01/09/15	01/09/15	12/09/17
01.000.3201.00010	ThermoFisher	2000-0004641	$ 33,833.28	$ 671.46	60	02/27/16	11/25/14	10/25/19
01.000.3201.00011	Lenovo Financial Services	908-0005392-000	$ 34,624.10	$ 801.56	48	05/15/14	05/15/14	04/15/18
01.000.3201.00012	Lenovo Financial Services	908-0006524-000	$ 14,575.40	$ 391.14	48	11/19/14	11/01/14	10/01/18
01.000.3201.00013	Partners Capital	13717	$ 12,926.57	$ 385.09	48	03/27/14	03/31/14	02/28/18
01.000.3201.00014	ThermoFisher	100-10059861	$ 5,984.43	$ 272.98	24	02/19/15	03/31/15	02/28/17
01.000.3201.00015	CSC Leasing Company	15016 SCH A	$ 17,495.00	$ 491.00	36	04/03/15	05/01/15	04/01/18
01.000.3201.00016	CSC Leasing Company	15016 SCH B	$ 25,000.00	$ 700.00	36	04/07/15	05/01/15	04/01/18
01.000.3201.00017	CSC Leasing Company	15016 SCH C	$ 34,562.31	$ 966.00	36	05/04/15	06/01/15	05/01/18
01.000.3201.00018	CSC Leasing Company	15016 SCH D	$ 154,155.00	$ —	0	PENDING		#NUM!
01.000.3201.00019	Navitas Lease Corporation	40186398	$ 55,678.00	$ 1,378.03	48	02/25/15	02/25/15	01/25/19
01.000.3201.00020	Royal Bank of America	LTI112 (225098)	$ 20,578.33	$ 656.00	38	04/14/15	02/04/15	01/04/18
01.000.3201.00021	Lenovo Financial Services	1289511 (1037789)	$ 17,260.20	$ 479.45	36	05/22/15	05/27/15	04/27/18
01.000.3201.00022	First American	2015215-01	$ 12,511.72	$ 389.99	36	08/04/15	09/01/15	08/01/18
01.000.3201.00023	CSC Leasing Company	15016 SCH F	$ 174,075.00	$ 4,851.00	36	09/15/15	10/01/15	09/01/18
01.000.3201.00024	CSC Leasing Company	15016 SCH G	$ 31,026.00	$ 867.00	36	10/02/15	11/01/15	10/01/18
Total ACTIVE			$ 890,465.86					
In Process:								
TBD	Waters Corporation	NAD0000580-1	$ 127,650.00					
Total COMMITTED to Date			**$ 1,018,115.86**					

Liquidia Technologies, Inc.

Exhibit A

Permitted Liens

State: Delaware
Office: Secretary of State
Names Searched: Liquid Technologies, Inc.
Type of Search: UCC
Through Date: 9/07/15

No.	Secured Creditor/ Assignee	Filing Date	Instrument No.	Collateral
1	Wells Fargo Bank, N.A.	1/31/14	20140408054	Equipment
2	Union Bank	6/27/14	20142540177	Equipment
3	Thermo Fisher Financial Services Inc.	10/20/14	20144215810	Equipment
4	Bryn Mawr Equip. Finance, LLC	11/05/14	20144450409	Equipment
5	Thermo Fisher Financial Services Inc.	12/05/14	20144926283	Equipment
6	Royal Bank America Leasing	1/14/15	20150179852	Equipment
7	Dell Financial Services, L.L.C.	2/17/15	20150662774	Equipment
8	Navitas Lease Corp.	5/07/15	20151960698	Equipment
9	Capital Bank	5/11/15	20152004215	Equipment
10	Union Bank & Trust	6/08/15	20152423084	Equipment
11	Corporation Service Company, as Representative	7/10/15	20152979812	Master Lease Agreement No. 2015215 — Asset specific filing, property now or hereafter subject to a lease between lessor and lessee.
12	Corporation Service Company, as Representative	8/25/15	20153704862	Master Lease Agreement No. 2015215 — Asset specific filing, property now or hereafter subject to a lease between lessor and lessee.

State: North Carolina
Office: Secretary of State
Names Searched: Liquid Technologies, Inc.
Type of Search: UCC
Through Date: 10/04/15

No.	Secured Creditor/ Assignee	Filing Date	Instrument No.	Collateral/Notes
1	MD Capital Partners, Inc.	6/03/14	20140052659F	Equipment
2	De Lage Landen Financial Services, Inc.	9/16/14	20140087654J	Equipment — pursuant to Contract # 100-10052141
3	Royal Bank America Leasing, LP	4/15/15	20150034122A	Equipment
4	DE Lage Landen Financial Services, Inc.	10/05/15	20150094876C	Equipment — pursuant to Contract # 100-10082877

Liquidia Technologies, Inc.

Intellectual Property (Section 5.4)

Liquidia Technologies, Inc.
Patent Portfolio Docket
17 December 2015

Internal ID	UNC Docket	Outside Counsel Docket	Title	App. No.	App. Date	Pub No	Patent No	Assigned/ Licensed
			Photocurable perfluoropolyethers for use as novel materials in mlcrofluidic					Assigned to UNC and Cal Tech, exclusively Licensed to Liquidia
5001US	04-0013	035052/338792	devices	10/572764	9/23/2004	20070254278	8268446	Technologies (co-exclusion
5001AU		035052/338794				2004276302	2004276302	in
5001CA		035052/338795				2540035	2540035	microfluidies)
5001CN		035052/338796				200480034620	200480034620	
5001EP		035052/338798				04784924.5	1694731	
5001HK		035052/339054				08100301	1106262	
5001IN		035052/338800				2212/DELNP/2006	261330	
5001IP		035052/338801				2006-527164	4586021	
5001MX		035052/338803				2006/003201	299945	
5001SG		035052/338805				200601875 7.6	120640	
			Methods for fabricating isolated micro-and nanostructures using soft or imprint					Assigned to UNC, exclusively licensed to Liquidia Technologies
5002US	04-0104	035052/338899	lithography	10/583570	12/20/2004	20090028910	8263129	
5002AU		035052/338850				2004318602	2004318602	
5002BR		035052/338851				0417848.3	PENDING	
5002CA		035052/338852				2549341	2549341	
5002CADIV1		035052/442868				2847260	PENDING	
5002CN		035052/338853				20048004194 2.9	20048004194 2.9	
5002EP		035052/338889				04821787.1	PENDING	
5002HK		035052/338890				07103263.7	PENDING	
5002IL		035052/338892				176254	PENDING	
5002IN		035052/338893				3991/DELNP/2006	PENDING	
5002JP		035052/338895				2006545541	PENDING	
5002JPDIV1		035052/405505				2011-104856	PENDING	
5002JPDIV2		035052/443661				2014.054051	PENDING	
5002JPDIV3		035052/450277				2014-161427	PENDING	
5002KR		035052/338894				10-2006-7012179	10-1281775	
5002KRDIV1		035052/408972				10-2011-7020441	10-1376715	
5002KRDIV3		035052/447192				10-2014-7018393	PENDING	
5002MX		035052/338896				PA/A/2006/006738	266246	
5002SG		035052/338898				200603890-5	123152	

CONFIDENTIAL

Liquidia Technologies, Inc.
Patent Portfolio Docket
17 December 2015

Internal ID	UNC Docket	Outside Counsel Docket	Title	App. No.	App. Date	Pub No	Patent No	Assigned/ Licensed
5002ZA		035052/338900				2006/04885	PENDING	
5002-01US		035052/339501		11/825469	7/6/2007	2009/0061152	8420124	
5002-02US		035052/430281		13/852683	3/28/2013	20140072632	8992992	
5002-03US		035052/458758		14/658386	3/16/2015	20150283079	PENDING	
			Methods and materials for fabricating microfluidic					Assigned to UNC, exclusively licensed to Liquidia
5003-01US	04-0067	035052/339941	devices	12/063284	8/9/2006	20090281250	8158728	Technologies
5003-01EP		035052/339740				06801056.0	PENDING	
5003-01EPDIV1		035052/424881				12185073.9	PENDING	
5003-02US		035052/417580		13/438431	4/3/2012	20120256354	8444899	
			Methods and materials for fabricating laminate nanomolds and					Assigned to Liquidia Technologies
5013US		064549-5013US	nanoparticles therefrom	11/633763	12/4/2006	20080131692	8128393	
5013CN		064549-5013CN				200780050904.3	101668594	
5013CNDIV1		063549-5013CNDIV1				201410061019.7	PENDING	
5013-01HK		064549-5013-01HK				14111960.7	PENDING	
5013EP		064549-5013EP				07874162	PENDING	
5013JP		064549-5013JP				2009-540277	PENDING	
5013JPDIV1		064549-5013JPDIV1				2012-185449	5680597	
5013JPDIV2		064549-5013JPDIV2				2015016697	PENDING	
5013KR		064549-5013KR				2009-7013846	10-1507816	
5013KRDIV1		064549-5013KRDIV1				10-2014-7011301	10-1507805	
5013KRDIV2		064549-5013KRDIV2				10-2014-7033229	PENDING	
5013-01US		064549-5013-01		13/354046	1/19/2012	20120189728	8439666	
5013-02US		064549-5013-02		13/834454	3/15/2013	13/834454	8662878	
5013-03US		064549-5013-03		14/157971	1/17/2014	14/157971	8945441	
5013-04US		064549-5013-04		14/574543	12/18/2014	2015/101743	PENDING	
			Nanostructured surfaces for biomedical/ biomaterial applications and processes					Assigned to Liquidia Technologies
5015US		064549-5015US	thereof	12/087374	1/4/2007	20090250588	8944804	
5015-01US		064549-5015-01US		14/572895	12/17/2014	20150148903	PENDING	

Liquidia Technologies, Inc.
Patent Portfolio Docket
17 December 2015

Internal ID	UNC Docket	Outside Counsel Docket	Title	App. No.	App. Date	Pub No	Patent No	Assigned/ Licensed
			Nanoparticle fabrication methods, systems, and					Assigned to UNC, exclusively licensed to Liquidia Technologies
5020-01US	04-0104	035052/466548	materials			14/823334	PENDING	
5020AU		035052/339168				2006282042	2006282042	
5020BR		035052/339169				P10611827-5	PENDING	
5020CA		035052/339170				2611985	PENDING	
5020CN		035052/339171				200680029884.7	200680029884.7	
5020EP		035052/339172				06824764.2	PENDING	
5020IN		035052/339173				9431/DELNP/2007	PENDING	
S020JP		035052/339175				2008-517202	5570721	
5020MX		035052/339176				MX/A/2007/016039	295862	
			Isolated and fixed micro and nano structures and methods					Assigned to UNC, exclusively licensed to
5022US	04-0104	035052/330497	thereof	11/594023	11/7/2006	20070264481	9040090	Liquidia Technologies
5022EP		035052/343596				06849872.4	PENDING	
5022-01US		035052/462485				14/704047	PENDING	
			High fidelity nano-structures and arrays for photovoltaics and methods of					Assigned to UNC, exclusively licensed to Liquidia
5026-01US	07-0006	035052/430336	making the same	13/787134	3/6/2013	20130249138	ALLOWED	Technologies
5026EP		035052/364241				07835750.6	PENDING	
5026JP		035052/364251				2009509838	5162578	
5026CN		035052/364249				200780026068.5	200780026068.5	
5026KR DIV01		035052/457771				10-2015-7002658	ALLOWED	
			Discrete size and shape specific organic nanoparticles designed to elicit an immune					Assigned to UNC, exclusively licensed to Liquidia Technologies
5027US	07-0079	035052/379526	response			20100151031	PENDING	
5030-01US		064549-5030-01US	Nanoparticle	13/918322	6/11/2013	13/918322	8685461	Assigned to

			fabrication methods, systems, and materials					UNC, exclusively licensed to Liquidia Technologies
5031US	04-0063	035052/339238	Liquid materials for use in electrochemical cells	11/040317	1/21/2005	20060083971	7435495	Assigned to UNC, exclusively licensed to Liquidia Technologies

Liquidia Technologies, Inc.
Patent Portfolio Docket
17 December 2015

Internal ID	UNC Docket	Outside Counsel Docket	Title	App. No.	App. Date	Pub No	Patent No	Assigned/ Licensed
			Nanoparticle fabrication methods, systems and materials for fabricating artificial red blood cells					Assigned to UNC, exclusively licensed to Liquidia Technologies
5033US	04- 0104	035052/367428		12/374182	7/27/2007	20100028994	8465775	
5033-01US	04- 0104	035052/433688				2013/0336884	PENDING	
			Nanoparticles having functional additives for self and directed assembly and method of fabricating same					Assigned to Liquidia Technologies
5035-01US		064549-5035- 01US		14/804567	7/21/2015	20150325329	PENDING	
			System and method for producing particles and patterned films					Assigned to Liquidia Technologies
5037US		064549-5037US		12/250461	10/13/2008	20090098380	7976759	
5037CN		064549-5037CN				200880120295.9	20088012029 5.9	
5037CNDIV1		064549- 0537CNDIV1				201310435322.4	PENDING	
5037EP		064549-5037EP				08838460.7	PENDING	
5037IN		064549-5037IN				2648/CHENP/2010	PENDING	
5037JP		064549-5037JP				2010529144	5604301	
5037JPD1V01		064549-5037JPDIV01				2014150037	PENDING	
5037HK		064549-5037HK				1146018	PENDING	
5037-01HK		064549-5037-01HK				14109535.7	PENDING	
5037-01US		064549-5037-01		13/156147	6/8/2011	20110300293	8518316	
5037-02US		064549-5037-02		13/950447	7/25/2013	20140027948	PENDING	
			Immunomodulator particles and methods of treating					Assigned to Liquidia Technologies
5039-01US		064549-5039- 01US		14/737180	6/11/2015	20150273079	PENDING	
5039EP		064549-5039EP				09717401.5	PENDING	
5039JP		064549-5039JP 064549-5039JPDIV01				2011525477	PENDING	
5039JPDIV01						2014-238952	PENDING	
5039CN		064549-5039CN				200980116881	PENDING	
5039HK		064549-5039HK				1121640	PENDING	

Liquidia Technologies, Inc.
Patent Portfolio Docket
17 December 2015

Internal ID	UNC Docket	Outside Counsel Docket	Title	App. No.	App. Date	Pub No	Patent No	Assigned/ Licensed
			Degradable compounds and methods of use thereof, particularly with particle replication in non-wetting-templates					Assigned to UNC and Liquidia Technologies, UNC rights exclusively licensed to Liquidia Technologies
5042US	08-0090	035052/396046		12/989315	4/24/2009	20110123446	8945527	
			Method for producing patterned materials					Assigned to Liquidia Technologies
5044US		064549-5044US		12/630569	12/3/2009	20100173113	8444907	
5044BR		064549-5044BR				0923282-6	PENDING	
5044CN		064549-5044CN				200980156363	ALLOWED	
5044CNDIV01		064549-5044CNDIV01				104162947	PENDING	
5044HK		064549-5044HK				1165612	PENDING	
5044-01HK		064549-5044 01HK				15104672	PENDING	
5044IN		064549-5044IN				4696/CHENP/2011	PENDING	
5044KR		064549-5044KR				10-2011-7015316	PENDING	
5044MX		064549-5044MX				MX/a/2011/005 900	PENDING	
5044EP		064549-5044EP				09831124.4	PENDING	
5044-01US		064549-5044-01US		13/867413	4/22/2013	20130241107	9205594	
5044-02US		064549-5044- 02US				14/937158	PENDING	
			Engineered aerosol particles and associated methods					Assigned to UNC and Liquidia Technologies, UNC rights exclusively licensed to Liquidia Technologies
5047 01US	10-0005	035052/466958				14/809853	PENDING	
5047EP		035052/414380				10742329.5	PENDING	
5047JP		035052/414381				2012-532739	5656996	
5047JP DIV01		035052/451735				2014-182213	PENDING	
			Nanowire grid polarizers and methods for fabricating the same					Assigned to Liquidia Technologies
5048US		064549-5048US				20120206805	PENDING	
5052US		064549-5052US	Polysaccharide particle vaccines	13/580212	8/21/2012	20130209564	PENDING	Assigned to Liquidia Technologies
5052CN		064549-5052CN				102834112	ALLOWED	
5052EP		064549-5052EP				11745449.6	PENDING	
5052IN		064549-5052IN				7248/CHENP/2012	PENDING	
5052HK		064549-5052HK				1320693	PENDING	

Liquidia Technologies, Inc.
Patent Portfolio Docket
17 December 2015

Internal ID	UNC Docket	Outside Counsel Docket	Title	App. No.	App. Date	Pub No	Patent No	Assigned/ Licensed
			ASYMMETRIC BIFUNCTIONAL SILYL MONOMERS AND PARTICLES THEREOF AS PRODRUGS AND DELIVERY VEHICLES FOR PHARMACEUTICAL , CHEMICAL AND BIOLOGICAL AGENTS					Assigned to UNC, exclusively licensed to Liquidia Technologies
5055-01US	11-0035	035052/451764				2015/0065670	PENDING	
5055EP		035052/430928				11760950	PENDING	
5055CN		035052/430925				201180055328	PENDING	
			Nanoparticles with reversible disulfide linkages					Assigned to UNC, exclusively licensed to Liquidia Technologies
6001US	11-0053	035052/435908				20140081012	PENDING	
			Geometrically engineered particles and methods for modulating macrophage or immune response					Assigned to UNC, exclusively licensed to Liquidia Technologies
6002US	12-0023	035052/445123				2015/0037428	PENDING	
6002EP		035052/445051				2785326	PENDING	
			High throughput manufacturing of microneedles					Assigned to UNC and Liquidia Technologies, UNC rights exclusively licensed to Liquidia Technologies
6003US	13-0007	035052/466560				14/761651	PENDING	
6003EP		035052/466611				14740839.7	PENDING	
			PARTICLES HAVING PEGYLATED SURFACES MODIFIED FOR LYMPHATIC TRAFFICKING					Assigned to UNC, exclusively licensed to Technologies
6004US	14-0006	035052/470097				14/782217	PENDING	
6005PCT		308970/2001	Virtual conjugate particles			WO2015/073831	PENDING	Assigned to Liquidia Technologies
			Particles containing phospholipids or bioactive fatty acids and uses thereof					Assigned to UNC, exclusively licensed to Liquidia Technologies
6009PCT	13-0101	035052/454611				PCT/US14/64312	PENDING	

Liquidia Technologies, Inc.
Patent Portfolio Docket
17 December 2015

Internal ID	UNC Docket	Outside Counsel Docket	Title	App. No.	App. Date	Pub No	Patent No	Assigned/ Licensed
6016PCT	14-0117	035052/460309	Responses by increasing cytotoxic T-cell function or production of interferon gamma therefrom			PCT/US15/23623	PENDING	Assigned to UNC, exclusively licensed to Liquidia Technologies
6033PR	14-0006	035052/466070	Rapidly dissolvable PRINT Microneedles for the transdermal delivery of therapeutics	62/190958		PENDING	PENDING	Assigned to UNC, exclusively licensed to Liquidia Technologies

Liquidia Technologies, Inc.

Trademark Report as of 10/14/2014

COUNTRY	REFERENCES#	FILED	APPL#	REGDT	REG#	STATUS	CLASSES
	All Actions Due (Oriainal)						
ENGINEERING THE FUTURE OF HEALTHCARE							
UNITED STATES	LIQ.21012		2/1/2013	85/838,191	9/2/2014	4,598,038	REGISTERED	40
	9/2/2020	*AFFIDAVIT OF USE*						

40 - Custom manufacture of micro- and nano-particles, namely those composed of polymers, used in the manufacture of industrial goods; custom manufacture of micro- and nano-partictes, namely those composed predominantly of polymers, prophylactics and/or therapeutics used for medical purposes

LIQUIDIA ENGINEERED DRUG THERAPIES								
UNITED STATES	LIQ.21014		2/1/2013	85/838,195	10/8/2013	4,413,872	REGISTERED	40
	10/8/2019	*AFFIDAVIT OF USE*						
	10/8/2023	*RENEWAL*						

40 - Custom manufacture of micro- and nano-particles, namely those composed of polymers, used in the manufacture of industrial goods; custom manufacture of micro- and nano-particles, namely those composed predominantly of polymers, prophylactics and/or therapeutics used for medical purposes

LIQUIDIA TECHNOLOGIES								
UNITED STATES	LIQ.21004		3/31/2006	78/851,549	10/23/2007	3,321,419	REGISTERED	01,05,40
	10/23/2017	*RENEWAL*						

01 - Micro- and nano-particles, namely, those composed of polymers, used for general scientific and research purposes; micro- and nano-particles, namely, those composed predominantly of polymers, used in the manufacture of industrial goods; micro- and nano-particles, namely, those composed predominantly of polymers modified with an encapsulated or surface-coated substance that provides identification, used in industrial goods

05 - Micro- and nano-particles, namely, those composed of polymers, therapeutics or excipients used for medical diagnostic and treatment purposes

40 - Custom manufacture of micro- and nano-particles, namely, those composed predominantly of polymers, for general scientific and research purposes and used in the manufacture of industrial goods; custom manufacture of micro- and nano-particles, namely, those composed predominantly of polymers or therapeutics used for medical purposes

UNITED STATES	LIQ.21006		8/13/2007	77/253,895	6/10/2008	3,444,256	REGISTERED	09
	6/10/2014	*AFFIDAVIT OF USE (Per email of 6/2/2014, evaluate filing prior to expiration of grace period)*						
	12/10/2014	*END OF GRACE PERIOD FOR AFFIDAVIT OF USE*						
	6/10/2018	*RENEWAL*						

09 - Optical films; namely, micro- and nano-patterned films and membranes composed of polymers and inorganics, used for directing light; imprint lithography, namely micro- and nano-patterned films and membranes composed primarily of polymers and inorganics, used for manufacture in a wide variety of industrial applications and for general scientific and research purposes

UNITED STATES	LIQ.21008		11/28/2007	77/338,844	3/15/2011	3,931,367	REGISTERED	01
	3/15/2017	*AFFIDAVIT OF USE*						
	3/15/2021	*RENEWAL*						

01 - Micro- and nano-particles, namely, those composed predominantly of polymers and inorganics, used in the manufacture of personal care and cosmetic applications and medical devices and microarrays

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UNITED STATES	LIQ.21010	11/28/2007	77/338,917	7/22/2008	3,471,235	CANCELED	01

01 - Micro- and nano-particles and micro- and nano-patterned films and membranes, namely, those composed predominantly of polymers and inorganics, used in the manufacture of photovoltaic and electrochemical cells

UNITED STATES	LIQ.21016					PROPOSED	40
	11/21/2014	*FILE APPLICATION (per email of 6/2/2014, revisit in November)*					

40 - Custom manufacture of micro- and nano-particles, namely those composed of polymers, used in the manufacture of industrial goods; custom manufacture of micro- and nano-particles, namely those composed predominantly of polymers modified or therapeutics used for medical purposes

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Liquidia Technologies, Inc.

Inbound Licenses (Section 5.12)

Liquidia Technologies, Inc.

Technology In-license Schedule, as of 14 December 2015

1. University of North Carolina at Chapel Hill: Amended and Restated License Agreement, effective December 15, 2008, as amended.
2. Envisia Therapeutics Inc.: License Agreement, effective November 8, 2013, as amended.
3. LQ3 Pharmaceuticals, Inc.: License Agreement, effective July 10, 2014, as amended; and Sub-License Agreement, effective July 10, 2014, as amended.

Exhibit 10.6

SECOND AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Second Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of October 12, 2016 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Bank hereby waives Borrower's violation of Section 7.4 of the Agreement for incurring Indebtedness of $2,165,179.81 to The University of North Carolina at Chapel Hill without Bank's prior written consent.

2) Section 2.1(b) of the Agreement is hereby amended and restated, as follows:

(b) Tranche I Term Loan.

(i) Bank has made one term loan in the aggregate principal amount of Three Million Dollars ($3,000,000) (the "Tranche I Term Loan"). The proceeds of the Tranche I Term Loan shall be used for general working capital purposes and for capital expenditures.

(ii) Interest shall continue to accrue on the Tranche I Term Loan at the rate specified in Section 2.3(a), and, prior to the Tranche I Interest-Only End Date, shall be payable monthly on the 18th day of each month. Any portion of the Tranche I Term Loan that is outstanding on the Tranche I Interest-Only End Date shall be payable in thirty (30) equal monthly installments of principal, plus all accrued interest, beginning on August 6, 2017, and continuing on the same day of each month thereafter through the Tranche I Term Loan Maturity Date, at which time all amounts due in connection with the Tranche I Term Loan shall be immediately due and payable. The Tranche I Term Loan, once repaid, may not be reborrowed. Borrower may prepay all or any portion of the Tranche I Term Loan without penalty or premium

3) A new Section 2.1(d) is hereby added to the Agreement, as follows:

(d) Tranche II and Tranche III Term Loans.

(i) Tranche II Term Loans. Subject to and upon the terms and conditions of this Agreement, Bank agrees to make one or more term loans to Borrower in an aggregate principal amount not to exceed Three Million Dollars ($3,000,000) (each a "Tranche II Term Loan" and collectively the "Tranche II Term Loans"). Borrower may

request Tranche II Term Loans at any time from the date hereof through the Availability End Date, provided that each Tranche II Term Loan so requested shall be in the principal amount of $250,000 or an integral multiple thereof. The proceeds of the Tranche II Term Loans shall be used for general working capital purposes and for capital expenditures.

(ii) Tranche III Term Loans. Subject to and upon the terms and conditions of this Agreement, Bank agrees to make one or more term loans to Borrower in an aggregate principal amount not to exceed Four Million Dollars ($4,000,000) (each a "Tranche III Term Loan" and collectively the "Tranche III Term Loans", and together with the Tranche I Term Loan and the Tranche II Term Loans, each a "Term Loan" and collectively the "Term Loans"). Borrower may request Tranche III Term Loans at any time from the Tranche III Availability Start Date through the Availability End Date, provided that each Tranche III Term Loan so requested shall be in the principal amount of $250,000 or an integral multiple thereof. The proceeds of the Tranche III Term Loans shall be used for general working capital purposes and for capital expenditures.

(iii) Interest shall accrue from the date of each Tranche II Term Loan and Tranche III Term Loan at the rate specified in Section 2.3(a), and, prior to the Availability End Date, shall be payable monthly beginning on the 12th day of the month next following such Tranche II Term Loan or Tranche III Term Loan, and continuing on the same day of each month thereafter. Any Tranche II Term Loans and Tranche III Term Loans that are outstanding on the Availability End Date shall be payable in thirty-six (36) equal monthly installments of principal, puls all accrued interest, beginning on the date that is one month immediately following the Availability End Date, and continuing on the same day of each month thereafter through the Tranche II/Tranche III Term Loan Maturity Date, at which time all amounts due in connection with the Tranche II Term Loans and Tranche III Term Loans and any other amounts due under this Agreement shall be immediately due and payable. Tranche II Term Loans and Tranche III Term Loans, once repaid, may not be reborrowed. Borrower may prepay any Tranche II Term Loan or Tranche III Term Loan at any time without penalty or premium.

(iv) When Borrower desires to obtain a Tranche II Term Loan or Tranche III Term Loan, Borrower shall notify Bank (which notice shall be irrevocable) by facsimile transmission to be received no later than 3:30 p.m. Eastern time on the day on which the Tranche II Term Loan or Tranche III Term Loan is to be made. Such notice shall be substantially in the form of Exhibit C. The notice shall be signed by an Authorized Officer.

2) Section 2.3(a) of the Agreement is hereby amended and restated, as follows:

(a) Interest Rates.

(i) Tranche I Term Loan. Except as set forth in Section 2.3(b), the Tranche I Term Loan shall bear interest, on the outstanding daily balance thereof, at a rate equal to (A) 3.75% during the period commencing on the Closing Date and ending on the Tranche I Interest-Only End Date, and (B) 5.00% commencing on the day immediately following the Tranche I Interest-Only End Date and continuing thereafter.

(ii) Tranche II Term Loans and Tranche III Term Loans. Except as set forth in Section 2.3(b), the Tranche II Term Loans and Tranche III Term Loans shall bear interest, on the outstanding daily balance thereof, at a rate equal to (A) 3.75% during the period on and before the Availability End Date, and (B) 5.00% commencing on the day immediately following the Availability End Date and continuing thereafter.

3) Section 2.5(b) of the Agreement is hereby amended and restated, as follows:

(b) Success Fee. Upon the occurrence of a Liquidity Event, a one-time success fee equal to $250,000 (the "Success Fee Amount"); provided that, if Borrower has requested and Bank has made a Tranche III Term Loan on or before consummation of the Liquidity Event, then the Success Fee Amount shall instead be $400,000. This Section 2.5(b) shall survive any termination of this Agreement.

4) Section 6.2(c) of the Agreement is hereby amended and restated, as follows:

(c) an annual budget approved by Borrower's board of directors as soon as available but not later than February 28th of each year during the term of this Agreement;

5) A new Section 6.10 is hereby added to the Agreement, as follows:

6.10 Milestone Covenants. Borrower shall achieve the following milestone covenants:

(a) Funding Milestone. Borrower shall achieve the Funding Milestone.

(b) Clinical Milestone. With respect to at least one internally developed product, Borrower shall file, on or before December 31, 2016, an IND with the FDA or an application for a new clinical trial authorization (CTA) with the Danish Medicines Agency.

(c) Setting of Future Covenants. Bank and Borrower hereby agree to set one or more mutually agreeable financial or milestone covenants following Borrower's achievement of the covenants in Section 6.10(a) and Section 6.10(b) above. Such covenants shall be added to this Agreement through an amendment, and a violation of this Section 6.10(c) shall have occurred if Bank and Borrower have not executed such an amendment by January 30, 2017.

6) A new Section 6.11 is hereby added to the Agreement, as follows:

6.11 Subordination Agreement. Borrower shall either (a) deliver to Bank, on or before December 11, 2016, a subordination agreement, in form and substance satisfactory to Bank, duly executed by The University of North Carolina at Chapel Hill and acknowledged by Borrower, or (b) if Borrower does not satisfy clause (a), then, within thirty (30) days after Bank's written request, repay in full Borrower's Indebtedness of $2,165,179.81 to The University of North Carolina at Chapel Hill, subject to the condition that Borrower has achieved the Funding Milestone on or before the date of such repayment.

7) A new Section 6.12 is hereby added to the Agreement, as follows:

6.12 Landlord Waiver. Borrower shall deliver to Bank, on or before January 10, 2017, a landlord waiver with respect to Borrower's Morrisville, North Carolina leased premises, in form and substance reasonably satisfactory to Bank and duly executed by each of Borrower and the landlord of such premises.

8) Section 8.2(a) of the Agreement is hereby amended and restated, as follows:

(a) If Borrower fails to perform any obligation under Sections 6.2 (financial reporting), 6.4 (taxes), 6.5 (insurance), 6.6 (primary accounts), 6.10 (milestone covenants), or 6.11 (subordination agreement), or violates any of the covenants contained in Article 7 of this Agreement; or

9) Section 8.6 of the Agreement is hereby amended and restated, as follows:

8.6 Other Agreements. If there is a default or other failure to perform in any agreement to which Borrower is a party with a third party or parties (a) resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of $250,000, (b) where such third party or parties holds Pre-IPO Subordinated Debt, with respect to an agreement governing the rights or obligations of such Pre-IPO Subordinated Debt, (c) in connection with any lease of real property, or (d) that would reasonably be expected to have a Material Adverse Effect;

10) The following defined terms are hereby added in Exhibit A to the Agreement, as follows:

"Funding Milestone" means Borrower's receipt, after October 1, 2016 but on or before December 31, 2016, of proceeds from the sale or issuance of Borrower's equity or Subordinated Debt securities in an amount, from investors, and otherwise on terms acceptable to Bank.

"Pre-IPO Subordinated Debt" means unsecured, convertible notes that are (a) to be issued by Borrower to prospective purchasers of Borrower's equity securities through an initial public offering on the SGX exchange in Singapore and (b) subordinated to Bank in a manner satisfactory to Bank.

"Tranche I Interest-Only End Date" means July 6, 2017.

"Tranche I Term Loan Maturity Date" means January 6, 2020.

"Tranche II/Tranche III Term Loan Maturity Date" means October 12, 2020.

"Tranche III Availability Start Date" means the date as of which Borrower achieves the Funding Milestone.

11) The following defined term in Exhibit A to the Agreement is hereby amended and restated, as follows:

"Availability End Date" means October 12, 2017.

12) The defined term "Term Loan Maturity Date" and its definition in Exhibit A to the Agreement are hereby deleted.

13) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

14) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

15) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

16) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) an officer's certificate of Borrower with respect to incumbency and resolutions authorizing the execution and delivery of this Amendment;

c) payment of a $25,000 facility fee, which may be debited from any of Borrower's accounts;

d) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

e) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Matthew K. Jacobs
Name:	TIMOTHY ALBURY	Name:	MATTHEW K. JACOBS
Title:	CFO	Title:	AVP

Exhibit 10.7

THIRD AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Third Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of December 28, 2016 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Section 6.10(a) of the Agreement is hereby amended and restated, as follows:

(a) **Equity/Subordinated Debt Milestone**. Borrower shall receive, after October 1, 2016 but on or before January 15, 2017, proceeds from the sale or issuance of Borrower's equity or Subordinated Debt securities in an amount, from investors, and otherwise on terms acceptable to Bank.

2) A new subsection (g) is hereby added to the defined term "Permitted Indebtedness" in Exhibit A to the Agreement, as follows:

(g) Indebtedness to CSC Leasing Company of up to $1,500,000 for equipment lease financing.

3) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

4) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

5) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

6) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

c) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Dhruv Patel
Name:	Timothy Albury	Name:	Dhruv Patel
Title:	CFO	Title:	VP

[Signature Page to Third Amendment to Loan and Security Agreement]

FOURTH AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Fourth Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of March 30, 2017 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Bank hereby waives Borrower's violations of the "Setting of Future Covenants" covenant, as more specifically described in Section 6.10(c) of the Agreement (as such section is in effect immediately prior to the date of this Amendment), existing on and prior to the date of this Amendment, for failing to set financial or milestone covenants on or before January 30, 2017.

2) Section 2.1(d)(ii) of the Agreement is hereby amended and restated, as follows:

(ii) Tranche III Term Loans. Subject to and upon the terms and conditions of this Agreement, Bank agrees to make a term loan to Borrower on the Fourth Amendment Effective Date in an aggregate principal amount of Four Million Dollars ($4,000,000) (the "Tranche III Term Loan" or "Tranche III Term Loans", and together with the Tranche I Term Loan and the Tranche II Term Loans, each a "Term Loan" and collectively the "Term Loans"). The proceeds of the Tranche III Term Loan shall be used for general working capital purposes and for capital expenditures.

3) Section 2.5(b) of the Agreement is hereby amended and restated, as follows:

(b) Success Fee. Upon the occurrence of a Liquidity Event, a one-time success fee equal to $400,000 (the "Success Fee Amount"). This Section 2.5(b) shall survive any termination of this Agreement.

4) Section 6.10 of the Agreement is hereby amended and restated, as follows:

6.10 Financial and Milestone Covenants. Borrower shall maintain and achieve the following financial and milestone covenants:

(a) Gross Remaining Months Cash. Borrower shall maintain, at all times, Remaining Months Cash of greater than 2.0 to 1.0; provided, however, if Borrower secures a written and executed agreement from investors acceptable to Bank (and, for clarity, existing investors shall be deemed to be acceptable) to fund at Borrower's demand at least $10,000,000 in new equity or subordinated debt, then Borrower shall maintain, at all times, Remaining Months Cash of greater than 0.50 to 1.0 for so long as such an agreement is in effect.

(b) Clinical Milestone. With respect to at least one internally developed product, Borrower shall achieve final, positive Phase 1 data by April 30, 2017.

(c) Setting of Future Covenants. Bank shall set one or more financial or milestone covenants following Borrower's achievement of the covenant in Section 6.10(b) above and such covenant(s) shall be added to this Agreement through an amendment.

5) A new Section 6.13 is hereby added to the Agreement, as follows:

6.13 Subordination of Convertible Notes. Borrower shall deliver to Bank, on or before thirty (30) days following the Fourth Amendment Effective Date, one or more subordination agreements, in form and substance satisfactory to Bank, duly executed by noteholder(s) representing 90% of the aggregate principal amount of the convertible securities issued by Borrower after October 1, 2016 but on or before February 28, 2017; notwithstanding the foregoing, Borrower shall use commercially reasonable efforts to deliver to Bank, on or before thirty (30) days following the Fourth Amendment Effective Date, one or more subordination agreements, in form and substance satisfactory to Bank, duly executed by noteholder(s) representing 100% of the aggregate principal amount of such notes.

6) Section 7.8 of the Agreement is hereby amended and restated, as follows:

7.8 Capitalized Expenditures. Make Capitalized Expenditures in excess of $500,000 in the aggregate in any fiscal year of Borrower; provided, however, that Borrower shall be permitted to make Capitalized Expenditures not in excess $5,000,000 during the fiscal year ending December 31, 2017.

7) Section 8.6 of the Agreement is hereby amended and restated, as follows:

8.6 Other Agreements. If there is a default or other failure to perform in any agreement to which Borrower is a party with a third party or parties (a) resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any (i) convertible securities issued by Borrower after October 1, 2016 but on or before February 28, 2017, or (ii) other Indebtedness in an amount in excess of $250,000, (b) in connection with any lease of real property, or (c) that would reasonably be expected to have a Material Adverse Effect;

8) The following defined terms are hereby added in Exhibit A to the Agreement, as follows:

"Cash Burn" means an amount equal to the prior period's Cash minus the current period's ending Cash that has been adjusted for any changes to Cash as a result of borrowings and repayments of borrowings, proceeds from the sale of equity and the exercise of stock options or warrants and paid-in-capital and minority interest.

"Fourth Amendment Effective Date" means March 30, 2017.

"Remaining Months Cash" means, as of any measurement date, the ratio of (a) Cash maintained at Bank as of such measurement date to (b) the average monthly Cash Burn for the trailing six-month period ending on such measurement date.

9) The following defined term in Exhibit A to the Agreement is hereby amended and restated, as follows:

"Credit Card Maturity Date" means the date 364 days from the Fourth Amendment Effective Date.

10) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

11) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

12) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

13) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

c) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Matthew K. Jacobs
Name:	Timothy Albury	Name:	Matthew K. Jacobs
Title:	CFO	Title:	AVP

[Signature Page to Fourth Amendment to Loan and Security Agreement]

Exhibit 10.9

FIFTH AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Fifth Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of April 28, 2017 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Section 6.10(b) of the Agreement is hereby amended and restated, as follows:

(b) Clinical Milestone. With respect to at least one internally developed product, Borrower shall achieve final, positive Phase 1 data by May 15, 2017.

2) Section 6.13 of the Agreement is hereby amended and restated, as follows:

6.13 Subordination of Convertible Notes. Borrower shall deliver to Bank, on or before May 15, 2017, one or more subordination agreements; in form and substance satisfactory to Bank, duly executed by noteholder(s) representing 90% of the aggregate principal amount of the convertible securities issued by Borrower after October 1, 2016 but on or before February 28, 2017; notwithstanding the foregoing, Borrower shall use commercially reasonable efforts to deliver to Bank, on or before May 15, 2017, one or more subordination agreements, in form and substance satisfactory to Bank, duly executed by noteholder(s) representing 100% of the aggregate principal amount of such notes.

3) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall hot operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

4) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

5) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

6) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

c) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Matthew K. Jacobs
Name:	Timothy Albury	Name:	Matthew K. Jacobs
Title:	CFO	Title:	AVP

[Signature Page to Fifth Amendment to Loan and Security Agreement]

SIXTH AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Sixth Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of June 14, 2017 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Borrower is currently in violation of the Gross Remaining Months Cash covenant, as more particularly described in Section 6.10(a) of the Agreement (the "Existing Default"). In addition, Borrower has informed Bank that Borrower expects to continue to violate the Gross Remaining Months Cash covenant until Borrower's achievement of the Funding Milestone (the "Expected Default"). Bank hereby agrees to forbear from exercising any remedies that it may have against Borrower as a result of the occurrence of the Existing Default or the Expected Default through the earlier of (i) June 30, 2017, or (ii) the date on which any further Event of Default, other than the Expected Default, occurs. Bank's forbearance is subject to and contingent upon the performance by Borrower of all of the terms of the Agreement after the date of this Amendment, other than with respect to the Expected Default. Bank's forbearance shall not be deemed a continuing waiver or forbearance with respect to any Event of Default of a similar nature that may occur after the date of this Amendment. Notwithstanding the foregoing, upon Borrower's achievement of the Funding Milestone identified in Section 6.10(c) of the Agreement (as set forth in this Amendment), Bank shall be deemed to have waived the Existing Default and the Expected Default.

2) Notwithstanding anything to the contrary in the Agreement (including, without limitation, Section 6.6 of the Agreement), Bank and Borrower hereby agree that Borrower may maintain cash in accounts at UOB Kay Hian in Singapore, which cash represents the proceeds of an initial public offering of Borrower's equity securities on the Singapore stock exchange (SGX), for up to thirty days after such initial public offering.

3) Section 6.10 of the Agreement is hereby amended and restated, as follows:

6.10 Financial and Milestone Covenants. Borrower shall maintain and achieve the following financial and milestone covenants:

(a) Gross Remaining Months Cash. Borrower shall maintain, at all times, Remaining Months Cash of greater than 2.0 to 1.0; provided, however, if Borrower secures a written and executed agreement from investors acceptable to Bank (and, for clarity, existing investors shall be deemed to be acceptable) to fund at Borrower's demand at least

$10,000,000 in new equity or subordinated debt, then Borrower shall maintain, at all times, Remaining Months Cash of greater than 0.50 to 1.0 for so long as such an agreement is in effect.

(b) Minimum Cash at Bank. At all times from May 31, 2017 until the date as of which Borrower achieves the Funding Milestone in Section 6.10(c) below, Borrower shall maintain a balance of Cash at Bank of at least $1,100,000, monitored on a daily basis.

(c) Funding Milestone. Borrower shall receive, after May 31, 2017 but on or before June 30, 2017, Cash proceeds of at least $10,000,000, less reasonable transaction costs not to exceed $380,000, from the sale or issuance of Borrower's equity or Subordinated Debt securities.

(d) Clinical Milestone. Borrower shall receive FDA approval for Borrower's LIQ865 IND by August 31, 2017.

(e) Setting of Future Covenants. Bank shall set one or more financial or milestone covenants following Borrower's achievement of the covenant in Section 6.10(d) above, and such covenant(s) shall be added to this Agreement through an amendment.

4) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

5) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

6) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

7) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

c) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Matthew K. Jacobs
Name:	Timothy Albury	Name:	Matthew K. Jacobs
Title:	CFO	Title:	AVP

[Signature Page to Sixth Amendment to Loan and Security Agreement]

Exhibit 10.11

SEVENTH AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Seventh Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of October 27, 2017 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***") and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Borrower is currently in violation of the Gross Remaining Months Cash covenant, as more particularly described in Section 6.10(a) of the Agreement (the "Existing Default"). In addition, Borrower has informed Bank that Borrower expects to continue to violate the Gross Remaining Months Cash covenant until Borrower's achievement of the Funding Milestone (the "Expected Default"). Bank hereby agrees to forbear from exercising any remedies that it may have against Borrower as a result of the occurrence of the Existing Default or the Expected Default through the earlier of (i) November 15, 2017, or (ii) the date on which any further Event of Default, other than the Expected Default, occurs. Bank's forbearance is subject to and contingent upon the performance by Borrower of all of the terms of the Agreement after the date of this Amendment, other than with respect to the Expected Default. Bank's forbearance shall not be deemed a continuing waiver or forbearance with respect to any Event of Default of a similar nature that may occur after the date of this Amendment. Notwithstanding the foregoing, upon Borrower's achievement of the Funding Milestone identified in Section 6.10(c) of the Agreement (as set forth in this Amendment), Bank shall be deemed to have waived the Existing Default and the Expected Default.

2) Section 6.10 of the Agreement is hereby amended and restated, as follows:

6.10 Financial and Milestone Covenants. Borrower shall maintain and achieve the following financial and milestone covenants:

(a) Gross Remaining Months Cash. Borrower shall maintain, at all times, Remaining Months Cash of greater than 2.0 to 1.0; provided, however, if Borrower secures a written and executed agreement from investors acceptable to Bank (and, for clarity, existing investors shall be deemed to be acceptable) to fund at Borrower's demand at least $10,000,000 in new equity or subordinated debt, then Borrower shall maintain, at all times, Remaining Months Cash of greater than 0.50 to 1.0 for so long as such an agreement is in effect.

(b) Minimum Cash at Bank. At all times from October 27, 2017 until the date as of which Borrower achieves the Funding Milestone in Section 6.10(c) below,

Borrower shall maintain a balance of Cash at Bank of at least $1,400,000, monitored on a daily basis.

(c) Funding Milestone. Borrower shall receive, after October 15, 2017 but on or before November 15, 2017, Cash proceeds of at least $15,000,000, less reasonable transaction costs not to exceed $500,000, from the sale or issuance of Borrower's equity or Subordinated Debt securities.

(d) Clinical Milestone. Borrower shall not have observed any materially adverse data from Borrower's LIQ861 Phase 3 study as of February 28, 2018.

(e) Setting of Future Covenants. Bank shall set one or more financial or milestone covenants following Borrower's achievement of the covenant in Section 6.10(d) above, and such covenant(s) shall be added to this Agreement through an amendment.

3) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

4) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

5) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

6) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

c) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Lan Zhu
Name:	Timothy Albury	Name:	Lan Zhu
Title:	CFO	Title:	VP

[Signature Page to Seventh Amendment to Loan and Security Agreement]

Exhibit 10.12

EIGHTH AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Eighth Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of November 30, 2017 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Borrower is currently in violation of the Gross Remaining Months Cash covenant, as more particularly described in Section 6.10(a) of the Agreement (the "Existing Default"). In addition, Borrower has informed Bank that Borrower expects to continue to violate the Gross Remaining Months Cash covenant until Borrower's achievement of the Funding Milestone identified in Section 6.10(c) below (the "Expected Default"). Bank hereby agrees to forbear from exercising any remedies that it may have against Borrower as a result of the occurrence of the Existing Default or the Expected Default through the earlier of (i) December 31, 2017, or (ii) the date on which any further Event of Default, other than the Expected Default, occurs. Bank's forbearance is subject to and contingent upon the performance by Borrower of all of the terms of the Agreement after the date of this Amendment, other than with respect to the Expected Default. Bank's forbearance shall not be deemed a continuing waiver or forbearance with respect to any Event of Default of a similar nature that may occur after the date of this Amendment. Notwithstanding the foregoing, upon Borrower's achievement of the Funding Milestone identified in Section 6.10(c) of the Agreement (as set forth in this Amendment), Bank shall be deemed to have waived the Existing Default and the Expected Default.

2) Bank hereby waives Borrower's existing violation of the Funding Milestone covenant, as more particularly described in Section 6.10(c) of the Agreement (as in effect immediately prior to the date of this Amendment).

3) Section 6.10(b) of the Agreement is hereby amended and restated, as follows:

(b) Minimum Cash at Bank. At all times from November 30, 2017 until the date as of which Borrower achieves the Funding Milestone in Section 6.10(c) below, Borrower shall maintain a balance of Cash at Bank of at least $2,500,000, monitored on a daily basis.

4) Section 6.10(c) of the Agreement is hereby amended and restated, as follows:

(c) Funding Milestone. Borrower shall receive, after October 15, 2017 but on or before December 31, 2017, Cash proceeds of at least $12,500,000, less reasonable transaction costs not to exceed $500,000, from the sale or issuance of Borrower's equity or Subordinated Debt securities.

5) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

6) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

7) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

8) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

c) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Zack Mansfield
Name:	Timothy Albury	Name:	Zack Mansfield
Title:	CFO	Title:	SVP

[Signature Page to Eighth Amendment to Loan and Security Agreement]

NINTH AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Ninth Amendment to Loan and Security Agreement (the "***Amendment***") is made and entered into as of March 29, 2018 by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and LIQUIDIA TECHNOLOGIES, INC. ("***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of January 6, 2016 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Bank hereby agrees to refund to Borrower the principal amount of the Term Loans that Borrower paid to Bank during the months of February 2018 and March 2018. Such refunded amounts, along with all other outstanding principal of the Term Loans, shall hereafter be due and payable as set forth in Section 2.1(b)(ii) and Section 2.1(d)(iii) below.

2) Bank hereby waives Borrower's violations of Section 6.2(a) and Section 6.2(x) of the Agreement for failing to deliver to Bank, on or before March 2, 2018, the financial reporting and Compliance Certificate required thereby for the month ending January 31, 2018.

3) Bank hereby waives Borrower's violation of Section 6.2(c) of the Agreement for failing to deliver to Bank, on or before February 28, 2018, Borrower's Board-approved 2018 annual budget.

4) Section 2.1(b)(ii) of the Agreement is hereby amended and restated, as follows:

(ii) Interest shall continue to accrue on the Tranche I Term Loan at the rate specified in Section 2.3(a), and, prior to the Tranche I Interest-Only End Date, shall be payable monthly on the 18th day of each month. Any portion of the Tranche I Term Loan that is outstanding on the Tranche I Interest-Only End Date shall be payable in equal monthly installments of principal, plus all accrued interest, beginning on August 6, 2018, and continuing on the same day of each month thereafter through the Tranche I Term Loan Maturity Date, at which time all amounts due in connection with the Tranche I Term Loan shall be immediately due and payable. The Tranche I Term Loan, once repaid, may not be reborrowed. Borrower may prepay all or any portion of the Tranche I Term Loan without penalty or premium.

5) Section 2.1(d)(iii) of the Agreement is hereby amended and restated, as follows:

(iii) Interest shall accrue from the date of each Tranche II Term Loan and Tranche III Term Loan at the rate specified in Section 2.3(a), and, prior to the Tranche II/Tranche III Interest-Only End Date, shall be payable monthly beginning on the 12th day of the month next following such Tranche II Term Loan or Tranche III Term Loan, and continuing

on the same day of each month thereafter. Any Tranche II Term Loans and Tranche III Term Loans that are outstanding on the Tranche II/Tranche III Interest-Only End Date shall be payable in equal monthly installments of principal, plus all accrued interest, beginning on the date that is one month immediately following the Tranche II/Tranche III Interest-Only End Date, and continuing on the same day of each month thereafter through the Tranche II/Tranche III Term Loan Maturity Date, at which time all amounts due in connection with the Tranche II Term Loans and Tranche III Term Loans and any other amounts due under this Agreement shall be immediately due and payable. Tranche II Term Loans and Tranche III Term Loans, once repaid, may not be reborrowed. Borrower may prepay any Tranche II Term Loan or Tranche III Term Loan at any time without penalty or premium.

6) Section 6.10 of the Agreement is hereby amended and restated, as follows:

6.10 Financial and Milestone Covenants. Borrower shall maintain and achieve the following financial and milestone covenants:

(a) Minimum Cash at Bank. Borrower shall at all times maintain a balance of Cash at Bank of at least $8,000,000, monitored on a daily basis.

(b) Clinical Milestone. Borrower shall not have observed any materially adverse data from Borrower's LIQ861 Phase 3 study as of December 31, 2018.

(c) Setting of Future Covenants. Bank shall set one or more financial or milestone covenants following Borrower's achievement of the covenant in Section 6.10(b) above, and such covenant(s) shall be added to this Agreement through an amendment.

7) The following defined term is hereby added in Exhibit A to the Agreement, as follows:

"Tranche II/Tranche III Interest-Only End Date" means July 12, 2018.

8) The following defined terms in Exhibit A to the Agreement are hereby amended and restated, as follows:

"Credit Card Maturity Date" means September 30, 2018.

"Tranche I Interest-Only End Date" means July 6, 2018.

9) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

10) Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

11) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

12) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by Borrower;

b) payment of a $5,000 facility fee, which may be debited from any of Borrower's accounts;

c) payment of all Bank Expenses, including Bank's expenses for the documentation of this Amendment and any related documents, and any UCC, good standing or intellectual property search or filing fees, which may be debited from any of Borrower's accounts; and

d) such other documents and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

LIQUIDIA TECHNOLOGIES, INC.		**PACIFIC WESTERN BANK**	
By:	/s/ Timothy Albury	By:	/s/ Lan Zhu
Name:	Timothy Albury	Name:	Lan Zhu
Title:	Chief Accounting Officer	Title:	Vice President

[Signature Page to Ninth Amendment to Loan and Security Agreement]

EXECUTION COPY
CONFIDENTIAL

INHALED COLLABORATION AND OPTION AGREEMENT

This **INHALED COLLABORATION AND OPTION AGREEMENT** (the "**Agreement**") is entered into as of June 15, 2012 (the **"Effective Date"**) by and between **LIQUIDIA TECHNOLOGIES, INC.**, a Delaware corporation, having its principal place of business at 419 Davis Dr., Suite 100, Morrisville, NC 27560 ("**Liquidia**"), and **GLAXO GROUP LIMITED**, a company organized and existing under the laws of England and having an office and place of business at Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex, UB6 ONN, United Kingdom ("**GSK**"). Liquidia and GSK are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

RECITALS

WHEREAS, Liquidia controls certain technology for the formulation and/or delivery of small molecule, diagnostic, or biologic constructs, generally known as its PRINT platform technology, including PRINT particles, particle formulations, and PRINT processing technology;

WHEREAS, GSK possesses resources and expertise in the research, development, marketing, and commercialization of pharmaceutical products, and desires to develop pharmaceutical products using Liquidia's PRINT platform;

WHEREAS, Liquidia and GSK desire to collaborate on research regarding application of Liquidia's PRINT platform to pharmaceutical products upon the terms and conditions set forth herein;

WHEREAS, Liquidia desires to grant to GSK certain exclusive options and licenses as further described in this Agreement with respect to certain of Liquidia's intellectual property rights to enable GSK to further develop Research Products and commercialize Inhaled Products on the terms and conditions set forth herein; and

WHEREAS, Liquidia and GlaxoSmithKline Biologicals S.A. have entered into the Vaccine Collaboration Agreement (as defined below), and the Joint Steering Committee (as defined below) will oversee the Collaboration Program conducted under both this Agreement and the Vaccine Collaboration Agreement.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants and conditions contained in this Agreement, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

Unless the context otherwise requires, the terms in this Agreement with initial letters capitalized, shall have the meanings set forth below, or the meaning as designated in the indicated places throughout this Agreement.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

1.1 **"Acceptable Label"** means, for an applicable Product, a label for such Product as issued and approved by the applicable Regulatory Authority and acceptable to GSK in its sole discretion.

1.2 **"Acquiror"** has the meaning set forth in Section 17.5(a).

1.3 **"Action"** has the meaning set forth in Section 11.6(b)(i).

1.4 **"Affiliate"** means, with respect to a particular Party, a person, corporation, partnership, or other entity that controls, is controlled by or is under common control with such Party. For the purposes of this definition, the word "control" (including, with correlative meaning, the terms "controlled by" or "under common control with") means the actual power, either directly or indirectly through one or more intermediaries, to direct or cause the direction of the management and policies of such entity, whether by the ownership of fifty percent (50%) or more (or such lesser percentage which is the maximum allowed to be owned by a person, corporation, partnership or other entity in a particular jurisdiction) of the voting stock of such entity, or by contract or otherwise.

1.5 **"Agreement"** has the meaning set forth in the preamble.

1.6 **"Alliance Manager"** has the meaning set forth in Section 2.3.

1.7 **"Anti-Corruption Laws"** means the Foreign Corrupt Practices Act of 1977 and the UK Bribery Act, and any similar Laws in jurisdictions other than the U.S. and United Kingdom.

1.8 **"Antigen"** means any material that induces an adaptive immune response specific to itself. **"Antigen(s)"** includes antigens from viruses, bacteria, parasites, self or addiction as a Vaccine target. **"Antigen"** shall exclude the following: (a) antigens expressed from DNA or RNA *in vivo* (where the DNA or RNA is not in a live vector); (b) Free Polysaccharide; and (c) live replicating virus when the virus is contained in PRINT Material. For the sake of clarity, the Antigens included in the scope of the Vaccines Option granted to GSK hereunder encompass pre-conjugated polysaccharides and other live vectors.

1.9 **"Bankruptcy Code"** has the meaning set forth in Section 15.4.

1.10 **"BLA"** means a Biologicals License Application (as more fully defined in 21 C.F.R. 601 *et. seq*., or its successor provisions) and all amendments and supplements thereto.

1.11 **"BMGF"** means the Bill & Melinda Gates Foundation.

1.12 **"BMGF Letter Agreement"** means the letter agreement between Liquidia and BMGF dated February 18, 2011, as amended October 25, 2011.

1.13 **"Business Day"** means a day on which banking institutions in London, England and New York, New York are open for business, but excluding the nine (9) consecutive calendar days beginning on December 24th and continuing through January 1st of each calendar year during the Term, and all Saturdays and Sundays.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

1.14 **"Chairperson"** has the meaning set forth in Section 2.1(a).

1.15 **"Change of Control"** means the occurrence of any of the following: (a) a Party enters into a merger, consolidation, stock sale or sale or transfer of all or substantially all of its assets to which this Agreement relates, or other similar transaction or series of transactions with a Third Party; or (b) any transaction or series of related transactions in which any Third Party or group of Third Parties acquires beneficial ownership of securities of a Party representing more than fifty percent (50%) (or such lesser percentage which is the maximum allowed to be owned by a Third Party in a particular jurisdiction) of the combined voting power of the then outstanding securities of such Party. Notwithstanding the foregoing, a stock sale to underwriters of a public offering of a Party's capital stock or a stock sale to Third Parties solely for the purpose of financing or a transaction solely to change the domicile of a Party shall not constitute a Change of Control.

1.16 **"Claims"** has the meaning set forth in Section 13.1.

1.17 **"Clinical Trial"** means any human clinical trial of a Research Product or Liquidia Respiratory Product.

1.18 **"CMC"** has the meaning set forth in Section 7.1.

1.19 **"Co-Delivery Vaccine Field"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.20 **"COGS"** means the Standard Cost of manufacture and supply of the PRINT Material used in the Products, calculated annually for the period January 1st to December 31st, in accordance with IFRS. For purposes of this definition, **"Standard Cost"** means the sum of the Direct Costs and Indirect Costs attributable to the supply of the PRINT Material used in the Products. **"Direct Costs"** include those components that can be specifically identified as either raw ingredients, bought in intermediates or finishing supplies necessary to produce the PRINT Materials and the man hours necessary to perform the actual process of manufacturing the PRINT Materials (including processing and packaging, equipment operators, line mechanics, set up mechanics and material handlers to supply the line). **"Indirect Costs"** include those costs related directly to the manufacture and supply of the PRINT Materials, other than Direct Costs, including external tolling fees and other third party manufacturing expenses, shipping, insurance and quality control, as well as costs for the PRINT Materials that exist regardless of whether or not the supply occurs, including depreciation (which reflects on a *pro rata* basis the use of assets used for manufacture and supply of the product), utilities (e.g. electricity), facility maintenance, supervisory staff, warehouse allocations, plant support staff, corporate allocations, systems support and technical support for labor, in each case to the extent attributable to the manufacture and supply of the PRINT Materials. For clarity, "Standard Costs" do not include the following: plant costs incurred due to rework of the PRINT Materials, with the exception of a reasonable allowance in line with historical performance; value of PRINT Materials discarded in the manufacturing process (other than process related scrap); costs related to manufacturing process development; allocations of overhead incurred outside of the manufacturing and supply process such as support, business development, accounting, taxes and legal; and selling and administrative expenses.

1.21 **"Collaboration Costs"** has the meaning set forth in Section 3.4.

1.22 **"Collaboration Know-How"** has the meaning set forth in Section 11.3.

1.23 **"Collaboration Program"** means the conduct of both the Inhaled Collaboration and Vaccine Collaboration.

1.24 **"Combination"** has the meaning set forth in Section 1.109.

1.25 **"Commercial Supply Agreement"** has the meaning set forth in Section 9.2.

1.26 **"Commercially Reasonable Efforts"** means, with respect to a Party, such efforts that are consistent with the efforts and resources generally used by such Party in the exercise of its reasonable business discretion relating to the research, development and commercialization of a pharmaceutical product owned by it or to which it has exclusive rights, with similar product characteristics, which is of similar market potential at a similar stage in its development or product life, taking into account issues of patent coverage, safety and efficacy, product profile, the competitiveness of the marketplace, the proprietary position of the compound or product, the regulatory structure involved, the potential or actual profitability of the applicable products (including pricing and reimbursement status achieved or to be achieved), and other relevant factors, including technical, legal, scientific and/or medical factors. For purposes of clarity, Commercially Reasonable Efforts would be determined on a market-by-market and indication-by-indication basis for a particular Research Product or Product and it is anticipated that the level of effort may be different for different markets and may change over time, reflecting changes in the status of the Research Product or Product and the market(s) involved.

1.27 **"Committee Party(ies)"** has the meaning set forth in Section 2.1.

1.28 **"Confidential Information"** of a Party means any and all Know-How of such Party that is disclosed to the other Party under this Agreement, whether in oral, written, graphic, or electronic form. All Know-How disclosed by either Party pursuant to the Confidential Disclosure Agreement between the Parties dated March 9, 2011, and Amendment #1 To Confidential Disclosure Agreement dated January 25, 2012 (collectively, the "**Confidentiality Agreement**") shall be deemed to be such Party's Confidential Information disclosed hereunder.

1.29 **"Consulting Agreement"** means the Consulting Agreement between Liquidia and Joseph M. DeSimone (the **"Consultant"**), dated June 8, 2004, as amended.

1.30 **"Control"** means, with respect to any material, Know-How, Patent or other intellectual property right, that a Party (a) owns or (b) has a license (other than a license granted to such Party under this Agreement) to such material, Know-How, Patent or other intellectual property right and, in each case, has the ability to grant to the other Party access, a license, or a sublicense (as applicable) to the foregoing on the terms and conditions set forth in this Agreement without violating the terms of any then-existing agreement or other arrangement with any Third Party.

1.31 **"CPR"** has the meaning set forth in Section 16.3.

1.32 **"Development Delay"** has the meaning set forth in Section 6.2.

1.33 **"Development Supply Agreement"** has the meaning set forth in Section 9.1(b).

1.34 **"Disease Field"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.35 **"Dollar"** means a U.S. dollar, and "**$**" shall be interpreted accordingly.

1.36 **"Effective Date"** has the meaning set forth in the preamble.

1.37 **"EMA"** means the European Medicines Agency or any successor entity.

1.38 **"Enforcing Party"** has the meaning set forth in Section 11.6(b)(iii).

1.39 **"EU"** or **"European Union"** means the European Union member states as then constituted.

1.40 **"Excluded Applications"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.41 **"Executive Officer"** means, with respect to Liquidia, its Chief Executive Officer, with respect to GSK, its Senior Vice President of Platform Technology and Science, and with respect to GSK Bio, its Senior Vice President Research and Development Prophylactic Vaccines, or in each case, such Executive Officer's designee, provided such designee is at a Vice President level or above.

1.42 **"Exercised Disease Field"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.43 **"Exercised Field"** means the Liquidia Respiratory Field if GSK exercises the Liquidia Respiratory Option, and the Inhaled Field if GSK exercises the Inhaled Option.

1.44 **"FD&C Act"** means the U.S. Federal Food, Drug and Cosmetic Act, as amended, and applicable regulations promulgated thereunder by the FDA.

1.45 **"FDA"** means the U.S. Food and Drug Administration or any successor entity.

1.46 **"First Commercial Sale"** means, with respect to a Product, the first sale of such Product to a Third Party by or on behalf of GSK, its Affiliates or sublicensees in a given regulatory jurisdiction following the receipt of Regulatory Approval.

1.47 **"Free Polysaccharide"** means a polysaccharide that is not conjugated to a protective protein Antigen or carrier protein before it is contained in or associated with PRINT Material.

1.48 **"FTE"** means the equivalent of a full-time professional individual's work, at 1,950 hours per year, as adjusted to account for vacation and other permitted time off, for a

twelve (12)-month period. If any part-time personnel of Liquidia performs activities in furtherance of the Inhaled Collaboration under this Agreement, the full time equivalent to be attributed to such work shall reflect appropriate adjustment for such personnel's reduced total work time relative to full time personnel. FTE efforts shall include professional, scientific or technical work and shall not include general corporate and administrative overhead. Liquidia shall track FTEs using its standard practice and normal systems and methodologies.

1.49 **"FTE Costs"** means, for any period, (a) the percentage of time each FTE is involved in activities in furtherance of the performance of the Inhaled Collaboration in accordance with this Agreement, multiplied by (b) the number of FTEs involved in such activities for such percentage of time, multiplied by (c) an amount equal to the FTE Rate then in effect. For example, if eight (8) Liquidia employees devote fifty percent (50%) of their time to the performance of the Inhaled Collaboration during the first year of this Agreement, then the associated FTE Costs for such employees for such period would be 8x0.5x[***]=$[***]. For the avoidance of doubt, FTE Costs shall not include the costs of personnel serving as JSC, JIRC or JPC members, or Alliance Managers, in their duties as JSC, JIRC or JPC members or Alliance Managers.

1.50 **"FTE Rate"** means, as of the Effective Date, an annual rate of $[***] per FTE. The FTE Rate may be changed by Liquidia annually, upon notice to GSK and inclusion of the modified FTE Rate in the budget for the applicable Inhaled Plan, commencing on January 1, 2014 to reflect any year-to-year percentage increase or decrease from the Effective Date as reflected in the United States Consumer Price Index – All Urban Consumers, as published by the United States Department of Labor, Bureau of Statistics.

1.51 **"General Biological Effects"** means biological effect(s) that are not solely applicable within the Inhaled Field or vaccines applications and that result from either (a) the shape and/or uniformity of size of particles contained within PRINT Material or (b) the particle surface characteristics, particle modulus, and/or particle charge, only if and to the extent biological effect(s) are due to the association of such characteristics with the shape and/or uniformity of size of particles contained within PRINT Material, and cannot be achieved with a technology other than PRINT. For clarity, General Biological Effects does not include biological effects attributable to (i) components of PRINT Materials other than the particles themselves, such as excipients and polymers, or (ii) the overall formulation of the composition of particles comprising PRINT Materials.

1.52 **"Generic Product"** means, with respect to a particular Product in a particular regulatory jurisdiction, any pharmaceutical product that (a) contains substantially the same composition of active ingredients and particles as contained in such Product, in the same pharmaceutical form as the Product; (b) has obtained regulatory approval in such regulatory jurisdiction on expedited or abbreviated basis in a manner that relied on or incorporated data submitted by GSK, its Affiliates or sublicensees; and (c) is sold in such regulatory jurisdiction by a Third Party that is not a sublicensee of GSK or its Affiliates and did not purchase such product in a chain of distribution that included any of GSK, its Affiliates or sublicensees.

1.53 **"GLP"** means the then-current good laboratory practice standards promulgated or endorsed by the FDA as defined in 21 C.F.R. Part 58, and comparable regulatory standards promulgated by the EMA or other applicable Regulatory Authority, as they may be updated from time to time, including applicable quality guidelines promulgated under the ICH.

1.54 **"GMP"** means the then-current good manufacturing practice standards promulgated or endorsed by the FDA as defined in 21 C.F.R. Parts 210 and 211, as may be amended from time to time, or any successor thereto and foreign equivalents thereof.

1.55 **"Governmental Authority"** means any multi-national, federal, state, local, municipal, provincial or other governmental authority of any nature (including any governmental division, prefecture, subdivision, department, agency, bureau, branch, office, commission, council, court or other tribunal).

1.56 **"GSK Bio"** means GlaxoSmithKline Biologicals S.A., a company registered in Belgium under number RPM Nivelles — BE — 0440 872 918 and having its principal place of business at 89, Rue de l' Institut, 1330 Rixensart, Belgium.

1.57 **"GSK Bio Alliance Manager"** has the meaning set forth in Section 2.3.

1.58 **"GSK Collaboration Know-How"** has the meaning set forth in Section 11.3(b).

1.59 **"GSK Indemnitees"** has the meaning set forth in Section 13.1.

1.60 **"GSK Know-How"** means all (a) Know-How that is (i) Controlled by GSK or its Affiliates as of the Effective Date or during the Inhaled Collaboration Term which may include GSK Collaboration Know-How, and (ii) necessary or useful for Liquidia to carry out its obligations under the Inhaled Plan, and (b) PRINT Improvements.

1.61 **"GSK Materials"** means any and all materials selected by GSK, its Affiliates or sublicenses to research, develop and/or commercialize using or in connection with PRINT or PRINT Material, including compounds, active pharmaceutical ingredients, drug products, devices, biological materials, Antigens, immunostimulants, reagents or the like, and any modifications or derivatives thereof, whether or not such material is proprietary to GSK, its Affiliates or sublicensees.

1.62 **"GSK Patents"** means any Patent that (a) is Controlled by GSK or its Affiliates as of the Effective Date or during the Inhaled Collaboration Term and (b) would be infringed by Liquidia's performance of its obligations under the Inhaled Plan, absent the license granted hereunder.

1.63 **"GSK Respiratory Technology"** has the meaning set forth in Section 15.5(a)(i)(A).

1.64 **"GSK Technology"** means GSK Know-How and GSK Patents.

1.65 **"GSK Withholding Tax Action"** has the meaning set forth in Section 10.11(c).

1.66 **"ICC"** has the meaning set forth in Section 16.4.

1.67 **"ICH"** means International Conference on Harmonisation.

1.68 **"Indemnified Party"** has the meaning set forth in Section 13.3.

1.69 **"Indemnifying Party"** has the meaning set forth in Section 13.3.

1.70 **"Inhaled Collaboration"** has the meaning set forth in Section 3.1.

1.71 **"Inhaled Collaboration Term"** has the meaning set forth in Section 3.3(a).

1.72 **"Inhaled Field"** means the treatment of any human disease or condition in pulmonary tissues or cells, the brain or any other extra-pulmonary tissues, in each case via the inhaled route topically via the lung or nasal mucosa, but excludes prophylactic or therapeutic Vaccine. For clarity, the Inhaled Field includes the Liquidia Respiratory Field.

1.73 **"Inhaled License"** has the meaning set forth in Section 5.2(b).

1.74 **"Inhaled Option"** has the meaning set forth in Section 4.2(a).

1.75 **"Inhaled Option Notice"** has the meaning set forth in Section 4.2(b).

1.76 **"Inhaled Option Period"** has the meaning set forth in Section 4.2(b).

1.77 **"Inhaled Plan"** has the meaning set forth in Section 3.2.

1.78 **"Inhaled Product"** means (a) any drug product that is regulated under the FD&C Act on a prescription basis (or, with respect to drug products sold in jurisdictions other than the United States, that would be regulated under the FD&C Act on a prescription basis if sold in the United States) or (b) any drug product initially made available on a prescription basis as an Inhaled Product under this Agreement but later made available on a non-prescription or over-the-counter basis, in each case of (a) and (b) that comprises or contains PRINT Material and GSK Material in its final finished form for sale for use in humans in the Inhaled Field. For clarity, Inhaled Product excludes Research Materials, Research Products and any product that is intended for animal health use, diagnostic use or consumer health use.

1.79 **"JIRC Term"** has the meaning set forth in Section 2.2.

1.80 **"Joint Inhaled Collaboration Know-How"** has the meaning set forth in Section 11.4(a).

1.81 **"Joint Inhaled Collaboration Patents"** has the meaning set forth in Section 11.4(c).

1.82 **"Joint Inhaled Research Committee"** or **"JIRC"** has the meaning set forth in Section 2.2.

1.83 **"Joint Patent Committee"** or **"JPC"** has the meaning set forth in Section 2.4.

1.84 **"Joint Steering Committee"** or **"JSC"** means the committee formed by the Parties as described in Section 2.1.

1.85 **"Joint Vaccine Collaboration Know-How"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.86 **"Joint Vaccine Collaboration Patents"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.87 **"Joint Vaccines Research Committee"** or **"JVRC"** means the research committee established under Section 2.2 of the Vaccines Collaboration Agreement.

1.88 **"JSC Term"** has the meaning set forth in Section 2.1.

1.89 **"Know-How"** means any and all data and test data (including pharmacological, biological, chemical, biochemical, clinical test data and data resulting from non-clinical studies), results, inventions (whether or not patentable), technology, business or financial information or information of any other type, in any tangible or intangible form, including know-how, trade secrets, practices, techniques, methods, processes, developments, specifications, formulations, formulae, materials or compositions of matter of any type or kind (patentable or otherwise), software, algorithms, and expertise.

1.90 **"Laws"** means all laws, statutes, rules, regulations, ordinances and other pronouncements having the effect of law of any federal, national, multinational, state, provincial, county, city or other political subdivision.

1.91 **"Legal Requirement"** has the meaning set forth in Section 14.4(c).

1.92 **"Liquidia Collaboration Know-How"** has the meaning set forth in Section 11.3(a).

1.93 **"Liquidia Know-How"** means all Know-How that is (a) Controlled by Liquidia or its Affiliates as of the Effective Date or at any time during the Term, whether such Know-How arises under the Collaboration Program as Liquidia Collaboration Know-How or arises outside of the Collaboration Program (for example, arising in connection with the work conducted by UNC under the UNC Research Agreement), and (b) necessary or reasonably useful for the making, having made, using, selling, offering for sale and import of the Liquidia Respiratory Product, the Research Products or the Inhaled Products, as applicable. For clarity, Liquidia Know-How excludes Joint Inhaled Collaboration Know-How. The use of "Affiliate" in this definition shall exclude any Third Party that becomes an Affiliate of Liquidia in connection with a Change of Control of Liquidia after the Effective Date.

1.94 **"Liquidia Indemnitees"** has the meaning set forth in Section 13.2.

1.95 **"Liquidia Patents"** means any Patent that (a) is Controlled by Liquidia or its Affiliates as of the Effective Date or at any time during the Term, and (b) would be infringed by the making, having made, using, selling, offering for sale or import of the Liquidia Respiratory Product, Research Products or the Inhaled Products, as applicable, absent the license granted hereunder to GSK upon GSK's exercise of the Liquidia Respiratory Option or Inhaled Option, as applicable. For clarity, Liquidia Patents exclude Joint Inhaled Collaboration Patents, but include

Patents covering or claiming Liquidia Know-How. The Liquidia Patents existing as of the Effective Date include those set forth in Exhibit A attached hereto. The use of "Affiliate" in this definition shall exclude any Third Party that becomes an Affiliate of Liquidia in connection with a Change of Control of Liquidia after the Effective Date.

1.96 **"Liquidia Respiratory Field"** means the treatment or prevention of pulmonary hypertension.

1.97 **"Liquidia Respiratory License"** has the meaning set forth in Section 5.2(a).

1.98 **"Liquidia Respiratory Option"** has the meaning set forth in Section 4.1(b).

1.99 **"Liquidia Respiratory Product"** means the dry powder inhaled Treprostinil product known as NT-001 or a substitute non-proprietary compound directed to the treatment or prevention of pulmonary hypertension, which product is developed by Liquidia using PRINT. For clarity, any compound substitution shall become fixed as of the date GSK exercises the Liquidia Respiratory Option.

1.100 **"Liquidia Retained Product"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.101 **"Liquidia Technology"** means the Liquidia Know-How and Liquidia Patents. For purposes of clarity, Liquidia Technology includes Know-How and Patents covering or claiming any and all inventions, discoveries and other subject matter conceived or reduced to practice or otherwise discovered by or on behalf of Liquidia in connection with development of the Liquidia Respiratory Product, the Excluded Applications, or any vaccine product in the Retained Disease Field, that are related to PRINT and have broad applicability to other products, but excludes Know-How and Patents covering or claiming any and all inventions, discoveries and other subject matter conceived or reduced to practice or otherwise discovered by or on behalf of Liquidia in connection with development of the Liquidia Respiratory Product, the Excluded Applications, or any vaccine product in the Retained Disease Field, that are specific solely to the Liquidia Respiratory Product, the Excluded Applications, or any vaccine product in the Retained Disease Field, as applicable, that do not have broad applicability to other products, and therefore, are not necessary for the making, having made, using, selling, offering for sale and importing of other products (including Research Products and Inhaled Products).

1.102 **"Losses"** has the meaning set forth in Section 13.1.

1.103 "**Major EU Markets**" means France, Germany, Italy, Spain, and the United Kingdom.

1.104 "Marketing Authorization Application" or **"MAA"** means an application to the appropriate Regulatory Authority for approval to market a Product (but excluding pricing approval) in any particular jurisdiction, including an NDA or BLA in the U.S.

1.105 "Material Receiving Party" has the meaning set forth in Section 3.5(c)(i).

1.106 "Materials" has the meaning set forth in Section 3.5(c)(i).

1.107 "NDA" means a New Drug Application (as more fully described in 21 C.F.R. 314.50 et seq. or its successor regulation) and all amendments and supplements thereto.

1.108 "Negotiation Period" has the meaning set forth in Section 4.3.

1.109 "Net Sales" means, with respect to a Product, the sales figure publicly reported by GSK on a calendar quarterly basis as calculated using International Financial Reporting Standards (IFRS) applied in a consistent basis. An example of the calculation method used as of the Effective Date of this Agreement is listed in Schedule 1.109; provided, that such example is provided for illustrative purposes only and may not be the same calculation method used by GSK upon First Commercial Sale of a Product. Notwithstanding the foregoing, amounts received or invoiced by GSK, its Affiliates, or their sublicensees for the sale of such Product among GSK, its Affiliates or their respective sublicensees for resale shall not be included in the computation of Net Sales hereunder. With respect to any sale of any Product in a given country for any substantive consideration other than monetary consideration on arm's length terms (which has the effect of reducing the invoiced amount below what it would have been in the absence of such non-monetary consideration), for the purposes of calculating the Net Sales under this Agreement, such Product shall be deemed to be sold exclusively for money at the average Net Sales price charged to Third Parties for cash sales in such country during the applicable reporting period (or if there were only de minimus cash sales in such country, at the fair market value as determined by comparable markets). Adjustments may be made to the calculation of Net Sales as required by changes in IFRS as necessary in the future, or as appropriate to reflect changes to GSK's accounting rules (e.g. change from IFRS to UK GAAP).

If a Product is sold as part of a Combination (**"Combination"** means a Product formulated in combination with one or more already marketed product(s) derived independently of this Agreement) and such Product and other products contained in the Combination are sold separately, then Net Sales for purposes of determining royalties on the Product in the Combination shall be calculated by multiplying Net Sales by the fraction A/(A+B), where A is the [***] and B is the [***]; provided, that Net Sales for purpose of determining royalties on the Product in the Combination in accordance with this paragraph shall be no less than [***] percent ([***]%) of the Net Sales of the Combination.

If the Product in a Combination is not sold separately or if the average wholesale acquisition cost of the Product in the Combination is not available and the Parties are unable to agree on an alternative arrangement, then Net Sales for purposes of determining royalties on the Product in the Combination shall be determined by multiplying Net Sales of the Combination by a fraction X/Y, wherein X is the number of [***], and Y is the [***]; provided, that Net Sales for purpose of determining royalties on the Product in the Combination in accordance with this paragraph shall be no less than [***]percent ([***]%) of the Net Sales of the Combination. For illustrative purposes with respect to this paragraph, if GSK sells a Combination comprising (a) an already marketed product derived independently of this Agreement containing [***] and (b) a Product containing [***], the Net Sales of the Combination shall be multiplied by [***], provided that the Net Sales attributable to the Product in the Combination shall be no less than [***] percent ([***]%) of the Net Sales of the Combination.

1.110 "New Therapeutic Product" means any Inhaled Product or Research Product that is not a Rescue Therapeutic Product.

1.111 "Non-Governmental Organization" means any non-profit entity or voluntary citizens' group which is organized on a local, national or international level, for example see www.ngo.org, including BMGF.

1.112 "Party" or **"Parties"** has the meaning set forth in the preamble.

1.113 "Patents" means (a) pending patent applications, issued patents, utility models and designs; (b) reissues, substitutions, confirmations, registrations, validations, re-examinations, additions, continuations, continued prosecution applications, continuations-in-part, or divisions of or to any of the foregoing; and (c) extensions, renewals or restorations of any of the foregoing by existing or future extension, renewal or restoration mechanisms, including supplementary protection certificates or the equivalent thereof.

1.114 "Phase I Clinical Trial" means a Clinical Trial of a product in human subjects with the endpoint of determining initial tolerance, safety, immunogenicity or pharmacokinetic information in single dose, single ascending dose, multiple dose and/or multiple ascending dose regimens, which is prospectively designed to generate sufficient data (if successful) to commence a Phase II Clinical Study of such product, as further defined in 21 C.F.R. 312.21(a), as amended from time to time, or the corresponding foreign regulations.

1.115 "Phase II Clinical Trial" means a Clinical Trial of a product in human patients or subjects to determine immunogenicity, initial efficacy (if applicable) and dose range and/or regimen finding before commencing a Phase III Clinical Trial, as further defined in 21 C.F.R. 312.21(b), as amended from time to time, or the corresponding foreign regulations.

1.116 "Phase III Clinical Trial" means a pivotal Clinical Trial (whether or not denominated a "Phase III") of a product in human patients or subjects with a defined dose or a set of defined doses designed to ascertain efficacy and safety of such product for the purpose of enabling the preparation and submission of MAA to the competent Regulatory Authorities, as further defined in 21 C.F.R. 312.21(c), as amended from time to time, or the corresponding foreign regulations.

1.117 "PRINT" means Liquidia's proprietary micro or nano-fabrication process for producing particles and particles on a film of a predetermined size, shape and composition (generally known as PRINT® (Particle Replication In Nonwetting Template)), including all processes, systems and materials (including using molds but excluding making molds) for producing such particles and all Liquidia proprietary substances used in making any such particles. For the avoidance of doubt, PRINT does not include the particles or the particle formulations or PRINT Material generated using PRINT, or the PRINT Tooling.

1.118 "PRINT DMF" has the meaning set forth in Section 7.1.

1.119 "PRINT Improvements" means (a) any improvements or modifications to General Biological Effects; and/or (b) any Know-How to the extent related to PRINT or PRINT

Tooling made or generated using PRINT or PRINT Tooling in connection with the manufacturing of Research Materials, Liquidia Respiratory Product, Research Products or Inhaled Products, in each case of (a) and (b) made by GSK, its Affiliates or sublicensees (for clarity, including Third Party manufacturer) under this Agreement but outside the Inhaled Plan, as well as any Patents claiming or covering any of the foregoing, in all cases, Controlled by GSK, its Affiliates, sublicensees or Third Party manufacturers.

1.120 "PRINT Material" means a particle or a group of particles that is developed, manufactured or otherwise produced using PRINT and PRINT Tooling or otherwise developed, manufactured or produced using any Liquidia Technology whether such particle or group of particles is developed, manufactured or produced by Liquidia or GSK, or their Affiliates or sublicensees. For clarity, "particle(s)" may refer to the composition of the particles, including excipients that prevent degradation or provide stabilization to the particle(s), but specifically excludes and is not meant to encompass, any Research Products, Products or Research Materials.

1.121 "PRINT Tooling" means the Liquidia proprietary information, trade secrets, materials and substrates for fabricating the patterned drums (including the patterned drums themselves) and molds (excluding the molds themselves) that enable PRINT. For the avoidance of doubt, PRINT Tooling does not include the particles or any particle formulation, PRINT Material or PRINT.

1.122 "Product" means either an Inhaled Product(s) or the Liquidia Respiratory Product, as the context requires.

1.123 "Product Information" has the meaning set forth in Section 12.2(j).

1.124 "Product Infringement" has the meaning set forth in Section 11.6(a).

1.125 "Product Marks" has the meaning set forth in Section 11.9.

1.126 "Public Statement" has the meaning set forth in Section 14.4(c).

1.127 "Purpose" has the meaning set forth in Section 3.5(c)(i).

1.128 "Regulatory Approval" means all approvals (including MAA approval and supplements and amendments thereto and any required pricing approval), licenses, registrations or authorizations of any Governmental Authority necessary for the development or commercialization of the Liquidia Respiratory Product, a Research Product or Inhaled Product, including clinical testing, manufacture, distribution, use or sale of such Liquidia Respiratory Product, Research Product or Inhaled Product in a given regulatory jurisdiction.

1.129 "Regulatory Authority" means, in a particular country or jurisdiction, any applicable Governmental Authority involved in granting Regulatory Approval in such country or jurisdiction.

1.130 "Regulatory Exclusivity" means any exclusive marketing rights or data exclusivity rights conferred by any Governmental Authority with respect to a Product in a

country or jurisdiction, other than a Patent right, including orphan drug exclusivity, pediatric exclusivity, rights conferred in the U.S. under the Hatch-Waxman Act or the Biologics Price Competition and Innovation Act of 2009, or in the EU under Directive 2001/83/EC, or rights similar thereto in other countries or regulatory jurisdictions.

1.131 "Regulatory Materials" means regulatory applications, submissions, notifications, communications, correspondence, registrations, MAAs, Regulatory Approvals and/or other filings made to, received from or otherwise conducted with a Regulatory Authority in connection with the development or commercialization of a Research Product or Product in a particular country or jurisdiction.

1.132 "Remedial Action" has the meaning set forth in Section 7.5.

1.133 "Rescue Therapeutic Product" means any Inhaled Product or Research Product that contains GSK Material for which GSK had previously terminated development activities due to material safety, efficacy or formulation issues and for which development activities were reinitiated following the application of Liquidia Technology and/or Collaboration Know-How if PRINT or PRINT Materials are solely capable of solving such material safety, efficacy or formulation issues. Evidence of GSK's decision to terminate development as described above with respect to clinical stage assets will be as set forth in the minutes of the applicable GSK governance committee responsible for making the decision, and with respect to pre-clinical assets will be as set forth in GSK's iPLAN system.

1.134 "Research Materials" means any product that comprises or contains PRINT Material and GSK Material for use in the Inhaled Plan.

1.135 "Research Product" means any (a) product that is or is planned to be regulated under the FD&C Act on a prescription basis (or, with respect to drug products sold in jurisdictions other than the United States, that would be regulated under the FD&C Act on a prescription basis if sold in the United States) or (b) any drug product initially made available on a prescription basis as an Inhaled Product under this Agreement but later made available on a non-prescription or over-the-counter basis, in either case, that comprises or contains PRINT Material and GSK Material for use in Clinical Trials and other development activities in the Inhaled Field under this Agreement. For clarity, Research Product excludes Research Materials, Inhaled Products and any product that is intended for animal health use, diagnostic use or consumer health use.

1.136 "Respiratory Option Notice" has the meaning set forth in Section 4.1(c).

1.137 "Retained Field" has the meaning set forth in Section 5.9.

1.138 "Retained Disease Field" has the meaning set forth in the Vaccine Collaboration Agreement.

1.139 "Reversion Royalty" has the meaning set forth in Section 15.5(a)(i)(B).

1.140 "ROFN Notice" has the meaning set forth in Section 4.3.

1.141 "Royalty Purchaser" has the meaning set forth in Section 17.5(c).

1.142 "Royalty Term" has the meaning set forth in Section 10.5(b).

1.143 "Term" has the meaning set forth in Section 15.1.

1.144 "Territory" means the whole world.

1.145 "Third Party" means any entity other than Liquidia or GSK or their respective Affiliates.

1.146 "Third Party Agreements" means the agreements listed on Exhibit B.

1.147 "Transfer Record" has the meaning set forth in Section 3.5(c)(i).

1.148 "Transferring Party" has the meaning set forth in Section 3.5(c)(i).

1.149 "UNC License Agreement" means the Amended and Restated License Agreement between Liquidia and The University of North Carolina at Chapel Hill (**"UNC"**), dated December 15, 2008, as amended.

1.150 "UNC Material Transfer Agreement" means the Material Transfer Agreement between Liquidia and UNC, dated August 16, 2007, as amended.

1.151 "UNC Research Agreement" means the Supported Research Agreement between Liquidia and UNC, dated September 1, 2005, as amended.

1.152 "University Inventions" has the meaning set forth in Section 8(a) of the UNC Research Agreement.

1.153 "U.S." means the United States of America, including all possessions and territories thereof.

1.154 "**Vaccine**" means a biological product containing an Antigen(s) that induces an Antigen-specific immune response intended to prevent or treat the target disease or condition after administration to a human through any route of delivery, including intramuscular, intradermal, sublingual, intranasal or oral delivery, but excluding delivery to the lung.

1.155 "Vaccine Collaboration" has the meaning set forth in the Vaccine Collaboration and Option Agreement, dated June 15, 2012, between Liquidia and GSK Bio (the **"Vaccine Collaboration Agreement"**).

1.156 **"Vaccine Collaboration Term"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.157 **"Vaccine Option"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.158 **"Vaccine Option Period"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.159 **"Vaccine Plan"** has the meaning set forth in the Vaccine Collaboration Agreement.

1.160 **"Valid Claim"** means a claim of any issued and unexpired Patent included within Liquidia Patents, Joint Inhaled Collaboration Patents or Joint Vaccine Collaboration Patents, which claim has not been revoked, held invalid or unenforceable by a patent office, court or other governmental agency of competent jurisdiction in a final and non-appealable judgment (or judgment from which no appeal was taken within the allowable time period) and which claim has not been disclaimed, denied or admitted to be invalid or unenforceable through reissue, re-examination or disclaimer or otherwise.

1.161 **Interpretation.** In this Agreement, unless otherwise specified:

(a) "includes" and "including" shall mean respectively includes without limitation and including without limitation;

(b) words denoting the singular shall include the plural and vice versa and words denoting any gender shall include all genders;

(c) words such as "herein", "hereof", and "hereunder" refer to this Agreement as a whole and not merely to the particular provision in which such words appear; and

(d) the Exhibits and other attachments form part of the operative provision of this Agreement and references to this Agreement shall include references to the Exhibits and attachments.

ARTICLE 2
GOVERNANCE

2.1 **Joint Steering Committee**. Within fifteen (15) days after the Effective Date, the Parties shall, together with GSK Bio (collectively referred to as the **"Committee Parties"**), establish a joint steering committee (the "**Joint Steering Committee**" or "**JSC**") to oversee the Collaboration Program. Each Committee Party agrees to keep the JSC informed of its progress and activities under the Collaboration Program as described in this Section 2.1 and Section 2.1 of the Vaccine Collaboration Agreement. The JSC shall cease to meet and its role under this Agreement shall end upon the later to occur of either the expiration of the Inhaled Collaboration Term or the Vaccine Collaboration Term (the **"JSC Term"**).

(a) Membership. The JSC shall consist of two (2) representatives of each of GSK and GSK Bio, and four (4) representatives of Liquidia, in each case that have sufficient seniority to make decisions arising within the scope of the JSC's responsibilities. Each Committee Party may replace any or all of its representatives on the JSC at any time upon written notice to the other Committee Parties in accordance with Section 17.3. Each Committee Party may, subject to the other Committee Parties' prior approval, invite non-member

representatives of such Committee Party to attend meetings of the JSC as non-voting participants, subject to the confidentiality obligations of Article 14. The Committee Parties shall designate a chairperson (each, a **"Chairperson"**) to oversee the operation of the JSC, each such Chairperson to serve a twelve (12) month term. The right to name the Chairperson shall alternate between the Committee Parties with GSK Bio designating the first such Chairperson. Chairpersons shall have no additional powers or rights beyond those held by other JSC members.

(b) Meetings. The first scheduled meeting of the JSC shall be held no later than forty-five (45) days after the Effective Date. Thereafter, prior to the expiration of the JSC Term, the JSC shall meet at least once each calendar quarter, and more or less frequently as the Committee Parties mutually deem appropriate, on such dates and at such places and times as provided herein or as the Committee Parties shall agree. Any Committee Party may also call a special meeting of the JSC by at least ten (10) Business Days prior written notice to the other Committee Parties in the event such Committee Party reasonably believes that a significant matter must be addressed prior to the next regularly scheduled meeting, and such Committee Party shall provide the other Committee Parties with materials reasonably adequate to enable an informed decision on such matter. Meetings of the JSC that are held in person shall alternate between the offices of the Committee Parties, or such other location as the Committee Parties may agree. The members of the JSC also may meet or be polled or consulted from time to time by means of telecommunications, video conferences, electronic mail or correspondence, as deemed necessary or appropriate. Prior to any JSC meeting, the Chairperson shall prepare and circulate an agenda for such meeting; provided, however, that any Committee Party may propose additional topics to be included on such agenda, either prior to or in the course of such meeting. Meetings of the JSC shall be effective only if at least two (2) representatives of each Committee Party are present or participating in such meeting. Each Committee Party will bear all expenses it incurs in regard to participating in all meetings of the JSC, including all travel and living expenses.

(c) Minutes. On an alternating basis among the Committee Parties, during the same 12 month term as each Chairperson, an Alliance Manager from a Committee Party other than the Committee Party of the Chairperson shall be responsible for preparing and circulating minutes of each meeting of the JSC, setting forth, *inter alia*, an overview of the discussions at the meeting and a list of any actions, decisions or determinations approved by the JSC and a list of any issues to be resolved by the Executive Officers pursuant to Section 2.1(e)(i). Such minutes shall be effective only after approved by all Committee Parties in writing. With the sole exception of specific items of the meeting minutes to which the members cannot agree and that are escalated to the Executive Officers as provided in Section 2.1(e)(i), definitive minutes of all JSC meetings shall be finalized no later than thirty (30) days after the meeting to which the minutes pertain.

(d) Responsibilities. The JSC shall serve as a forum to share Know-How and learnings from each of the Inhaled Collaboration and Vaccines Collaboration. Specifically, the JSC shall:

(i) provide oversight over the Collaboration Program and facilitate communication and discussion between the Committee Parties with respect to the Collaboration Program;

(ii) ensure that each of the JVRC and JIRC be kept informed of data and Know-How generated under each of the Inhaled Plan and Vaccines Plan, respectively, that may have broad applicability or usefulness to both the Vaccines Plan and Inhaled Plan;

(iii) review and approve amendments to the Inhaled Plan and Vaccines Plan and all associated budgets;

(iv) discuss and resolve any disputes relating to the Collaboration Program, including any disputed matter referred from the JVRC or JIRC;

(v) from time to time but no more often than quarterly during the JSC Term, in consultation with the JIRC, JVRC and JPC, discuss research that has been conducted by UNC and Consultant under the UNC Research Agreement, the UNC Material Transfer Agreement and the Consulting Agreement in the Liquidia Respiratory Field, the Inhaled Field or Co-Delivery Vaccine Field, as well as outside the Liquidia Respiratory Field, the Inhaled Field or Co-Delivery Vaccine Field that is expected to relate to General Biological Effects, and review results, University Inventions and other inventions generated by all such research. Notwithstanding the foregoing, discussion of research shall occur more often than quarterly as required for GSK to review such research reasonably prior to publication thereof;

(vi) from time to time but no more often than quarterly during the JSC Term, in consultation with the JIRC, JVRC and JPC, review and approve any research to be conducted by Third Parties under agreements between Third Parties and UNC (which agreements may or may not include Liquidia as a party) using PRINT or PRINT Materials supplied by Liquidia in the Liquidia Respiratory Field, the Inhaled Field or Co-Delivery Vaccine Field, including the intellectual property provisions of such agreements, in accordance with Section 5.7;

(vii) from time to time but no more often than quarterly during the JSC Term, in consultation with the JIRC, JVRC and JPC, discuss research that has been conducted by Third Parties under agreements between Third Parties and UNC (which agreements may or may not include Liquidia as a party) using PRINT or PRINT Materials supplied by Liquidia outside the Liquidia Respiratory Field, the Inhaled Field or Co-Delivery Vaccine Field that is expected to relate to General Biological Effects, and review results and inventions generated by all such research, to the extent Liquidia becomes aware of such research results. Notwithstanding the foregoing, discussion of research shall occur more often than quarterly as required for GSK to review such research reasonably prior to publication thereof;

(viii) review and discuss manufacturing and supply requirements and obligations related to PRINT Materials, Research Materials and Research Products. Such discussion shall include matters related to any anticipated delay in manufacturing and supply of PRINT Materials and Research Materials, and the impact of such delay on the conduct of the Inhaled Plan or Vaccine Plan. The Parties shall also discuss whether such delay shall be addressed by an extension of the Inhaled Collaboration Term or Vaccine Collaboration Term or a manufacturing technology transfer as described in Section 5.2(c)(i); provided, that the technology transfer described in Section 5.2(c)(i) shall occur only if the Parties agree that such

transfer would be more likely to decrease the delay of conducting the Inhaled Plan or Vaccine Plan than allowing Liquidia to cure such delay in supply;

(ix) track expenses against agreed budgets as set forth in the Vaccine Plan and Inhaled Plan; and

(x) perform such other functions as agreed by the Parties in writing.

(e) Decision Making; Governance Principles.

(i) All decisions of the JSC shall be made by unanimous vote, with Liquidia's representatives collectively having one (1) vote and representatives of both GSK and GSK Bio collectively having one (1) vote. The JSC shall strive to seek consensus in its actions and decision making process. If after reasonable discussion and good faith consideration of each Party's view on a particular matter before the JSC, the representatives on the JSC cannot reach a unanimous decision on such matter within thirty (30) calendar days after such matter was raised to the JSC for resolution, then such disagreement shall be referred to the Executive Officers for resolution. If the Executive Officers cannot resolve such matter within thirty (30) calendar days after such matter has been referred to them, then (A) Liquidia's Executive Officer shall have the right to decide all matters relating to PRINT Tooling and the operational aspects of PRINT under this Agreement and the Development Supply Agreement; provided, that Liquidia's Executive Officer shall not have the right to decide matters related to GSK's choice of composition, size, and/or shape of the PRINT Material, quality issues of the PRINT Material, Research Materials or Research Products, or the quality or timing of delivery of such PRINT Material, Research Materials or Research Products (including a decrease in Liquidia's supply obligations), or matters related to the required manufacturing and scale-up deliverables set forth in the Inhaled Plan or Vaccines Plan, and (B) GSK's Executive Officer and/or GSK Bio's Executive Officer, as applicable to the matter under dispute, shall have the right to decide all other matters, in each case consistent with the terms of this Agreement and in good faith. Notwithstanding the foregoing, (1) unless otherwise agreed by the Parties, disputes relating to non-disclosure, non-use and maintenance of Confidential Information and determinations of material breach or interpretation of this Agreement shall not be subject to GSK and/or GSK Bio final decision-making authority and may be escalated to the dispute resolution process set forth in Article 16 and (2) disputes involving intellectual property issues within the purview of the JPC shall be resolved as provided in Section 2.4.

(ii) Each Party shall at all times exercise its final decision-making authority using reasonable scientific and business judgment, in compliance with applicable Laws, and in accordance with its obligations to use Commercially Reasonable Efforts. To the extent that GSK or GSK Bio, as the case may be, in exercising its final decision-making authority in accordance with the foregoing principles, determines that amendments are required to be made to the Inhaled Plan and/or Vaccine Plan, and such amendments would materially increase the scope of activities to be performed by Liquidia, then the Parties shall discuss such additional activities in good faith, and Liquidia will use Commercially Reasonable Efforts to accommodate such additional activities. If additional material financial or other resources are required to fulfil the increased scope of activities requested by GSK or GSK Bio, including funding for additional scale up or capital expenditures for Liquidia's manufacturing facilities,

then the Parties shall discuss the terms of sharing such additional financial resources, including the ability to credit GSK's additional scale up or capital expenditure costs against future manufacturing costs. If the Parties cannot agree on sharing of costs, then Liquidia shall not be obligated to perform the increased scope of activities requested by GSK or GSK Bio and GSK or GSK Bio shall not be obligated to provide additional funding for such increased scope of activities. For the avoidance of doubt, nothing herein is intended to prevent the JSC or GSK or GSK Bio (to the extent GSK or GSK Bio has final decision-making authority hereunder), as applicable, from (A) making non-material amendments to the Inhaled Plan or Vaccines Plan that do not impose on Liquidia additional material obligations, including financial obligations, or (B) making material amendments that are not related to the supply of PRINT Material, do not require a technology transfer of PRINT or PRINT Tooling to GSK or a Third Party manufacturer, and for which GSK or GSK Bio assumes responsibility and cost.

2.2 Joint Inhaled Research Committee. Within fifteen (15) days after the Effective Date, the Parties shall establish a joint research committee (the "**Joint Inhaled Research Committee**" or "**JIRC**") to oversee the day-to-day implementation and operational aspects of the Inhaled Collaboration. Each Party agrees to keep the JIRC informed of its progress and activities under the Inhaled Collaboration. The JIRC shall cease to meet and its role under this Agreement shall end upon the expiration of the Inhaled Collaboration Term (the **"JIRC Term"**).

(a) Membership. The JIRC shall consist of three (3) Liquidia personnel and three (3) GSK therapeutic area experts or platform technology experts of sufficient seniority to make decisions arising within the scope of the JIRC's responsibilities. Each Party may replace any or all of its representatives on the JIRC at any time upon written notice to the other Party in accordance with Section 17.3. Each Party may, subject to the other Party's prior approval, invite non-member representatives of such Party to attend meetings of the JIRC as non-voting participants, subject to the confidentiality obligations of Article 14.

(b) Meetings. The first scheduled meeting of the JIRC shall be held no later than forty-five (45) days after the Effective Date. Thereafter, prior to the expiration of the JIRC Term, the JIRC shall meet at least once per calendar month, and more or less frequently as the Parties mutually deem appropriate, on such dates and at such places and times as provided herein or as the Parties shall agree. Either Party may also call a special meeting of the JIRC by at least ten (10) Business Days prior written notice to the other Party in the event such Party reasonably believes that a significant matter must be addressed prior to the next regularly scheduled meeting, and such Party shall provide the other Party with materials reasonably adequate to enable an informed decision on such matter. Meetings of the JIRC that are held in person shall alternate between the offices of the Parties, or such other location as the Parties may agree. The members of the JIRC also may meet or be polled or consulted from time to time by means of telecommunications, video conferences, electronic mail or correspondence, as deemed necessary or appropriate. Meetings of the JIRC shall be effective only if at least two (2) representatives of each Party are present or participating in such meeting. Each Party will bear all expenses it incurs in regard to participating in all meetings of the JIRC, including all travel and living expenses.

(c) Minutes. The JIRC members shall designate a secretary at each meeting (which may be the Alliance Manager if the Alliance Manager attends such meeting) who shall be

responsible for keeping minutes that record all decisions and all actions recommended or taken in reasonable detail. Such minutes shall be effective only after approved by the Parties in writing. With the sole exception of specific items of the meeting minutes to which the members cannot agree and that are escalated to the JSC as provided in Section 2.2(e), definitive minutes of all JIRC meetings shall be finalized no later than fifteen (15) days after the meeting to which the minutes pertain.

(d) Responsibilities. The JIRC shall:

(i) oversee the implementation of the Inhaled Plan in accordance with the applicable budget;

(ii) review and discuss Know-How generated by the Parties in the course of performing the Inhaled Plan, and report all Know-How, data and results to the JSC on a quarterly basis (or more frequently as requested by the JSC);

(iii) consult with the JSC and JPC on the matters set forth in Sections 2.1(d)(v), (vi) and (vii); and

(iv) prepare proposed amendments to the Inhaled Plan and budget and submit such amendments to the JSC for review and approval.

(e) Decision Making. All decisions of the JIRC shall be made by unanimous vote, with each Party's representatives collectively having one (1) vote. The JIRC shall strive to seek consensus in its actions and decision making process. If after reasonable discussion and good faith consideration of each Party's view on a particular matter before the JIRC, the representatives on the JIRC cannot reach a unanimous decision on such matter within ten (10) calendar days after such matter was raised for resolution by the JIRC, then either Party may, by written notice to the other, have such issue submitted to the JSC for resolution in accordance with Section 2.1.

2.3 Alliance Managers. Within fifteen (15) days after the Effective Date, each Party shall appoint and notify the other Party of the identity of a representative having the appropriate qualifications, including a general understanding of pharmaceutical research and development issues, to act as its alliance manager under this Agreement (the "**Alliance Manager**"). The Alliance Managers shall serve as the primary contact points between the Parties and be primarily responsible for facilitating the flow of information and otherwise promoting communication, coordination and collaboration between the Parties. Each Party may replace its Alliance Manager at any time upon written notice to the other Party. The Alliance Managers shall attend each meeting of the JSC as non-voting members. In addition to the foregoing, the Parties acknowledge that GSK Bio shall appoint an alliance manager under the Vaccine Collaboration Agreement (the **"GSK Bio Alliance Manager"**); provided, that the Alliance Manager appointed by GSK hereunder shall serve as the primary point of contact for Liquidia's Alliance Manager across both this Agreement and the Vaccine Collaboration Agreement; and provided, further that the GSK Bio Alliance Manager shall attend each meeting of the JSC as a non-voting member, which attendance may be in person, or via teleconference or videoconference as appropriate and shall be responsible for facilitating any in person meetings of the JSC at the GSK Bio facilities.

2.4 Joint Patent Committee. Within fifteen (15) days after the Effective Date, the Committee Parties shall establish a joint patent committee (the "**Joint Patent Committee**" or "**JPC**"). Each Committee Party shall designate one representative to serve on the JPC. The JPC shall be responsible for discussing material Patent issues and to allow the Committee Parties to provide input to each other regarding the strategy for prosecution, maintenance, enforcement and defense of Joint Inhaled Collaboration Know-How, Joint Inhaled Collaboration Patents, Joint Vaccine Collaboration Know-How and Joint Vaccine Collaboration Patents and Liquidia Technology, including with respect to Liquidia Patents licensed to Liquidia under the UNC License Agreement as further described in Section 11.7. The JPC shall be responsible for working together to achieve a robust Patent portfolio taking into consideration the Liquidia Patents, Joint Inhaled Collaboration Patents and Joint Vaccine Collaboration Patents. In addition, the JPC shall be responsible for consulting with the JIRC, JVRC and JSC on the matters set forth in Sections 2.1(d)(v), (vi) and (vii), and determining whether any Joint Inhaled Collaboration Know-How or Joint Vaccine Collaboration Know-How is independently related to General Biological Effects and has broad applicability to therapeutic uses outside of any vaccines applications and/or the Inhaled Field. Decisions of the JPC shall be made by consensus. In the event of an unresolved dispute at the JPC, after escalation to senior patent counsels of the Committee Parties, Liquidia shall have final decision-making authority over issues related to the prosecution of Liquidia Technology, and GSK and GSK Bio collectively would have final decision-making authority over all issues related to the prosecution of the Joint Inhaled Collaboration Patents and Joint Vaccine Collaboration Patents; provided that no Committee Party shall have the right to make the final decision with respect to determining whether any Joint Inhaled Collaboration Know-How or Joint Vaccine Collaboration Know-How is independently related to General Biological Effects and has broad applicability to therapeutic uses outside of any vaccines applications and the Inhaled Field (such dispute shall be resolved pursuant to Article 16).

2.5 Advisory Council. Upon expiration of the JSC Term and exercise by GSK of the Inhaled Option, the Committee Parties shall establish an advisory council (the **"Advisory Council"**) whose primary function shall be to continue to meet as reasonably required by GSK, but not more frequently than quarterly or as otherwise agreed by the Parties, to discuss issues related to the ongoing development of Research Products by GSK and GSK Bio (in the event the Vaccines Option has been exercised in accordance with the terms of the Vaccine Collaboration Agreement), as well as manufacture of PRINT Materials and Research Products under the Development Supply Agreement by Liquidia, if applicable. For the avoidance of doubt, the Advisory Council is intended to facilitate an ongoing exchange of scientific information and data between the Parties for the benefit of and to inform future plans for, GSK's and GSK Bio's development of Research Products under this Agreement and the Vaccine Collaboration Agreement, and is not intended to serve as a decision-making committee. Further, the Development Supply Agreement shall provide for additional committees as necessary or appropriate to ensure Liquidia's cooperation with GSK with respect to any applicable assessments conducted by GSK of Liquidia or its subcontractors' manufacturing facilities and GSK's control over the applicable supply chains for the Research Products.

2.6 Limitation on Committee Power. Each of the JSC, JIRC and JPC shall only have the powers expressly assigned to it in this Article 2, in Article 2 of the Vaccine

Collaboration Agreement and elsewhere in this Agreement and shall not have the authority to: (a) modify or amend the terms and conditions of this Agreement; (b) waive either Party's compliance with the terms and conditions of under this Agreement; or (c) determine any such issue in a manner that would conflict with the terms and conditions of this Agreement.

ARTICLE 3
INHALED COLLABORATION PROGRAM

3.1 General. Subject to the terms and conditions of this Agreement, the Parties desire to establish an exclusive collaboration that is focused on defined studies designed to explore the potential application of PRINT and GSK Materials selected by GSK in its sole discretion, in the Inhaled Field (the "**Inhaled Collaboration**").

3.2 Inhaled Plan. The Parties shall conduct the Inhaled Collaboration pursuant to a work plan (the "**Inhaled Plan**"), that sets forth specific activities to be pursued by each Party, including reasonably detailed timelines and budgets associated with such activities. Under the Inhaled Plan, Liquidia would be primarily responsible for generating PRINT Materials, generating Research Materials using PRINT Materials and GSK Materials, and scaling up its manufacturing capabilities, and GSK would be primarily responsible for *in vitro* and *in vivo* evaluation of the PRINT Materials and Research Materials in assays and preclinical models. As of the Effective Date, the Parties have agreed upon the initial Inhaled Plan and associated budget which is attached to this Agreement as Exhibit C. From time to time (at least on an annual basis), the JIRC shall update and prepare amendments to the then-current Inhaled Plan and associated budget and shall submit such amendments and budget to the JSC for review and approval. Once approved by the JSC, such revised Inhaled Plan and budget shall replace the prior applicable Inhaled Plan and budget. If the terms of an Inhaled Plan contradict, or create inconsistencies or ambiguities with, the terms of this Agreement, then the terms of this Agreement shall govern and control.

3.3 Inhaled Collaboration Term.

(a) Subject to the extensions provided in Sections 3.3(b) and (c), the term of the Inhaled Collaboration (the "**Inhaled Collaboration Term**") shall commence on the Effective Date and expire on the third (3rd) anniversary thereof.

(b) If delivery of PRINT Materials or Research Materials for the conduct of the Inhaled Plan as specified in the initial Inhaled Plan attached as Exhibit C does not occur within the first six (6) months after the Effective Date, and provided that Liquidia timely receives the necessary GSK Materials from GSK to make the Research Materials, then the Inhaled Collaboration Term shall be extended by the amount of time delivery is delayed past such six (6) month period.

(c) Subject to Section 3.3(b), the Inhaled Collaboration Term shall be automatically extended if (i) a delay in manufacturing and supply of PRINT Materials and Research Materials by Liquidia would have an adverse impact on the conduct of the Inhaled Collaboration, and (ii) the Parties mutually agree at the JSC that such delay is not likely to be remedied more quickly by a manufacturing technology transfer to a Third Party as described in

Section 5.2(c)(i). If the foregoing conditions are met, then the Inhaled Collaboration Term shall be extended by the amount of time delivery of PRINT Materials and Research Materials is delayed. For the avoidance of doubt, such delay shall not cause GSK to incur any additional FTE Costs or any other Collaboration Costs.

3.4 Collaboration Costs. GSK shall be responsible for Liquidia's FTE Costs, non-standard costs for lab supplies and manufacturing costs of PRINT Materials and Research Materials incurred solely in connection with the conduct of the Inhaled Plan (and not for activities outside of the conduct of the Inhaled Plan or in furtherance of Liquidia's collaborations with Third Parties) in accordance with the applicable budget (the **"Collaboration Costs"**). For clarity, manufacturing costs included in the Collaboration Costs shall not exceed [***] Dollars ($[***]) per single shift day for standard costs and shall not include any costs associated with capital expenditures for Liquidia's manufacturing facilities unless otherwise agreed by the Parties in accordance with Section 2.1(e)(ii). Notwithstanding anything to the contrary in this Agreement (including the Inhaled Plan and any revisions thereto), GSK shall fund no less than three (3) Liquidia FTEs, but no more than four (4) Liquidia FTEs to work on the Inhaled Collaboration per year. If the activities to be conducted under the Inhaled Plan require additional FTE support, then the JSC shall meet to discuss how to staff such additional activities, which may include contribution of GSK FTEs, at GSK's cost, to perform activities assigned to Liquidia. GSK shall reimburse Liquidia for the Collaboration Costs as set forth in Section 10.2. For the avoidance of doubt, GSK shall be responsible for all costs and expenses incurred by GSK to conduct the Inhaled Collaboration.

3.5 Conduct of Collaboration.

(a) Compliance with Laws; Animal Welfare. Each Party shall use Commercially Reasonable Efforts to carry out the activities assigned to it under the Inhaled Plan, and shall conduct such activities in good scientific manner and in compliance in all material respects with the principles set forth in the attached **Schedule 3.5** (to the extent such principles are applicable to the activities being conducted by that Party) and in compliance with all applicable Laws, including applicable national and international guidelines such as ICH and GLP. In addition to the foregoing, each Party shall at all times comply and shall ensure compliance by any of its subcontractors with the most current best practices for pharmaceutical companies for the proper care, handling and use of animals in pharmaceutical research and development activities, and with the "3R Principles" (reducing the number of animals used, replacing animals with non-animal methods whenever possible and refining the research techniques used), subject to the other Party's reasonable right of inspection, and will promptly and in good faith undertake reasonable corrective steps and measures to remedy the situation to the extent that any significant deficiencies are identified as a result of such inspection.

(b) Data Integrity. Each of the Parties acknowledges the importance of ensuring that the activities conducted under the Inhaled Plan are undertaken in accordance with the following good data management practices, and shall use Commercially Reasonable Efforts to ensure the following:

(i) data are being generated using sound scientific techniques and processes;

(ii) data are being accurately and reasonably contemporaneously recorded in accordance with good scientific practices by personnel conducting research or development hereunder;

(iii) data are being analyzed appropriately without bias in accordance with good scientific practices; and

(iv) data and results are being stored securely and can be easily retrieved.

(c) Material Transfer.

(i) Other than as may be set forth in the Development Supply Agreement (as defined in Section 9.1), in order to facilitate activities of the Parties under the Inhaled Plan, either Party (referred to in this Section 3.5(c) as the **"Transferring Party"**) may provide to the other Party (referred to in this Section 3.5(c) as the **"Material Receiving Party"**) certain materials, PRINT Materials, GSK Materials, Research Materials or Research Products Controlled by the Transferring Party (such materials provided hereunder are referred to, collectively, as "**Materials**") for use by the Material Receiving Party in furtherance of its rights and the conduct of its obligations under the Inhaled Plan and, in the event GSK exercises either or both of the Liquidia Respiratory Option or Inhaled Option, in furtherance of its rights under the Liquidia Respiratory License or Inhaled License, as applicable (the **"Purpose"**). All transfers of such Materials by the Transferring Party to the Material Receiving Party shall be documented in writing (the **"Transfer Record"**) that sets forth the type and name of the Material transferred, the amount of the Material transferred, the date of the transfer of such Material and the Purpose.

(ii) Except as otherwise provided under this Agreement, all such Materials delivered by the Transferring Party to the Material Receiving Party shall remain the sole property of the Transferring Party, shall only be used by the Material Receiving Party in furtherance of the Purpose, and shall be returned to the Transferring Party upon the termination of this Agreement or upon the discontinuation of the use of such Materials (whichever occurs first). The Material Receiving Party shall not cause the Materials to be used by or delivered to or for the benefit of any Third Party without the prior written consent of the Transferring Party.

(iii) At the time the Transferring Party provides Materials to the Material Receiving Party as provided herein and to the extent not separately licensed under this Agreement, the Transferring Party hereby grants to the other Party a non-exclusive license under the Patents and Know-How Controlled by it to use such Materials solely for the Purpose.

(iv) The Parties agree that the exchanged Materials: (A) shall be used in compliance with applicable Laws; (B) shall not be used in animals intended to be kept as domestic pets; (C) shall not be transferred to a Third Party except if this is provided for and is done in accordance with this Agreement; and (D) shall not be reverse engineered or chemically analyzed, except if this is provided for in the applicable Inhaled Plan.

(v) THE MATERIALS SUPPLIED BY THE TRANSFERRING PARTY UNDER THIS SECTION 3.5(c) ARE SUPPLIED "AS IS" AND NOT FOR USE IN HUMANS EXCEPT AS EXPRESSLY AGREED BY THE PARTIES IN WRITING, AND THE TRANSFERRING PARTY MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE MATERIALS DOES NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS OF A THIRD PARTY.

(vi) The Material Receiving Party assumes all liability for damages that may arise from its use, storage or disposal of the Materials. The Transferring Party shall not be liable to the Material Receiving Party for any loss, claim or demand made by the Material Receiving Party, or made against the Material Receiving Party by any Third Party, due to or arising from the use of the Materials, except to the extent such loss, claim or demand is caused by the gross negligence or willful misconduct of the Transferring Party.

3.6 Records and Reports. Until expiration of the JIRC Term, each Party shall provide written progress reports on the status of its activities under the Inhaled Plan, including detailed reports of data and Know-How arising from such activities, at least five (5) Business Days in advance of each JIRC meeting.

3.7 Subcontractors. Each Party shall have the right to engage subcontractors for the purpose of conducting activities assigned to it under the Inhaled Plan, provided that (a) the subcontractor undertakes in writing obligations of confidentiality and non-use regarding Confidential Information, that are substantially the same as those undertaken by the Parties pursuant to Article 14 hereof, and (b) the subcontractor agrees in writing to assign or otherwise grant exclusive, sublicensable rights to all intellectual property developed in the course of performing any such work under the Inhaled Plan to the Party retaining such subcontractor. Each Party shall remain responsible for any obligations under the Inhaled Plan that have been delegated or subcontracted to any subcontractor, and shall be responsible for the performance of its subcontractors.

3.8 Regulatory Matters. During the Inhaled Collaboration Term, GSK shall prepare, own and maintain all Regulatory Materials filed with Regulatory Authorities in the Territory in connection with the activities to be undertaken pursuant to the Inhaled Plan. As reasonably requested by GSK from time to time during the Inhaled Collaboration Term, Liquidia shall, at Liquidia's expense, promptly provide assistance to GSK with its filings and other interactions with Regulatory Authorities.

ARTICLE 4
OPTION RIGHTS; RIGHT OF FIRST NEGOTIATION

4.1 Liquidia Respiratory Option.

(a) During the Term, Liquidia has the right to develop the Liquidia Respiratory Product, and GSK shall have the right, but not the obligation, to contribute to the development of the Liquidia Respiratory Product as may be agreed by the Parties.

(b) Subject to the terms and conditions of this Agreement, Liquidia hereby grants to GSK an exclusive option, exercisable at GSK's sole discretion, to obtain the Liquidia Respiratory License described in Section 5.2(a) (the "**Liquidia Respiratory Option**").

(c) At such time as (i) Liquidia has compiled a data package for the Liquidia Respiratory Product sufficient to present to prospective licensees, or (ii) at GSK's written request, Liquidia shall present to GSK via the JSC such data package referred to in (i) above, or if (ii) is applicable, then Liquidia shall present to GSK a data package for the Liquidia Respiratory Product that contains all relevant material information and data reasonably requested by GSK at such time (for clarity, Liquidia shall not be required to provide GSK with PRINT Tooling). Thereafter, GSK may exercise the Liquidia Respiratory Option by providing written notice to Liquidia at any time before or upon the expiration of the Inhaled Collaboration Term (the "**Respiratory Option Notice**").

(d) If the Respiratory Option Notice is not provided by GSK before or upon the expiration of the Inhaled Collaboration Term, then: (i) the Liquidia Respiratory Option shall expire, and (ii) Liquidia shall have the right, in its discretion, to continue the development and commercialization of the Liquidia Respiratory Product, either on its own or in collaboration with a Third Party, with no further obligations to GSK.

4.2 Inhaled Option.

(a) Subject to the terms and conditions of this Agreement, Liquidia hereby grants to GSK an exclusive option, exercisable at GSK's sole discretion, to obtain the Inhaled License described in Section 5.2(b) (the "**Inhaled Option**").

(b) GSK may exercise the Inhaled Option by providing written notice to Liquidia (the "**Inhaled Option Notice**") at any time before or upon the date that is six (6) months after the expiration of the Inhaled Collaboration Term and receipt by GSK of all the final data and results generated by or on behalf of Liquidia under the Inhaled Collaboration (the "**Inhaled Option Period**").

(c) If the Inhaled Option Notice is not received by Liquidia before or upon the expiration of the Inhaled Option Period, then: (i) the Inhaled Option shall expire, (ii) each Party shall have the right to practice and/or license the Joint Inhaled Collaboration Know-How as joint owner, without any requirement of gaining the consent of, or accounting to, the other Party, (iii) each Party shall provide the other Party with copies of all Joint Inhaled Collaboration Know-How generated in the course of performing the Inhaled Plan not already in the receiving Party's possession.

(d) Notwithstanding anything to the contrary herein, if GSK exercises the Inhaled Option, then each Party shall thereafter have the right to practice and/or license its interests in the Joint Inhaled Collaboration Know-How outside the Inhaled Field (but not in the Exercised Disease Fields, if the Vaccine Option has been exercised under the terms of the Vaccine Collaboration Agreement) as joint owner, without any requirement of gaining the consent of, or accounting to, the other Party.

4.3 Right of First Negotiation. If during the Inhaled Option Period and/or Vaccines Option Period, Liquidia desires to grant a non-exclusive license to its interest in the Joint Inhaled Collaboration Know-How or Joint Vaccines Collaboration Know-How as described in Section 11.4(b)(iii), then it shall first notify GSK and GSK Bio of such desire in writing, describing in reasonable detail the scope of the license it is interested in granting to a Third Party from whom Liquidia has received a term sheet or letter of intent (the **"ROFN Notice"**) and GSK and/or GSK Bio thereafter shall have the exclusive right of first negotiation to obtain an exclusive, worldwide, sublicensable license to Liquidia's interest in the Joint Inhaled Collaboration Know-How or Joint Vaccines Collaboration Know-How, as applicable, and any other intellectual property rights (which may include Liquidia Technology) then controlled by Liquidia that are necessary or reasonably useful for the making, having made, use, sale, offering for sale or importation of products in the applicable field (i.e. a field outside vaccines applications and/or the Inhaled Field). GSK or GSK Bio shall have thirty (30) days from the receipt of the ROFN Notice to inform Liquidia in writing of its election to negotiate the terms of such exclusive license, and another thirty (30) days to submit to Liquidia an initial proposal for the terms of such exclusive license. If GSK or GSK Bio delivers such notice during the first thirty (30) day period and submits the initial proposal within the second thirty (30) day period, Liquidia shall negotiate exclusively in good faith with GSK or GSK Bio, for a period not to exceed six (6) months from GSK's or GSK Bio's receipt of the ROFN Notice (the **"Negotiation Period"**), the terms under which Liquidia will grant such exclusive license to GSK or GSK Bio. If GSK or GSK Bio and Liquidia fail to reach a binding written agreement for the exclusive license by the end of the Negotiation Period, then Liquidia shall be free to negotiate with any Third Party for a non-exclusive license within the same applicable field that was the subject of negotiations with GSK or GSK Bio, and to grant such non-exclusive license to any Third Party; provided, that if Liquidia grants such non-exclusive license to a Third Party within nine (9) months after the expiration of Negotiation Period, then the terms of such Third Party license shall be no less favorable to Liquidia than the terms last proposed by GSK or GSK Bio to Liquidia. Notwithstanding anything to the contrary, the licenses that Liquidia may grant to a Third Party in a particular proposed field include Joint Inhaled Collaboration Know-How or Joint Vaccines Collaboration Know-How, as the case may be, that arises during the Inhaled Collaboration Term or Vaccine Collaboration Term, as the case may be, including after the date of the ROFN Notice, and all such Joint Inhaled Collaboration Know-How or Joint Vaccines Collaboration Know-How (including any Joint Inhaled Collaboration Know-How or Joint Vaccines Collaboration Know-How that arises after the expiration of Negotiation Period) shall be thereafter excluded from and not subject to this Section 4.3 as to the particular field proposed to GSK. Further, each time Liquidia desires to grant a non-exclusive license to the Joint Inhaled Collaboration Know-How or Joint Vaccines Collaboration Know-How in a different field than previously proposed to GSK in the right of first negotiation described in this Section 4.3, either to the same Third Party or a different Third Party, then such additional license in a different field shall first be offered to GSK or GSK Bio on the terms set forth above. Subject to Section 4.4 below, Liquidia shall be free to grant non-exclusive licenses to its interest in the Joint Inhaled Collaboration Know-How or Joint Vaccine Collaboration Know-How outside the field of prescription pharmaceutical drugs, products sold on an over-the-counter basis after switching from a prescription basis, or biological products (including biosimilar products) at any time, and the right of first negotiation described in this Section 4.3 shall only apply in the field of prescription pharmaceutical products, pharmaceutical products sold on an over-the-counter basis after switching from a prescription

basis, or vaccine or biological products (including biosimilar products). For purposes of this Section 4.3, "biological products" means any products that cause a biological effect in humans, including, for example, vaccines, monoclonal antibodies and cytokines.

4.4 Consumer Health and Diagnostics. During the Inhaled Option Period and/or Vaccines Option Period, Liquidia shall have the right to grant a non-exclusive license to its interests in the Joint Inhaled Collaboration Know-How or Joint Vaccines Collaboration Know-How as described in Section 11.4(b)(iii) for use in the consumer healthcare field or diagnostic field; provided, that it shall first notify GSK and GSK Bio of such desire in writing, describing in reasonable detail the scope of the license it is interested in granting to a Third Party.

ARTICLE 5
LICENSES

5.1 Collaboration License Under Liquidia Technology. Subject to the terms and conditions of this Agreement, Liquidia hereby grants to GSK a non-exclusive, worldwide, sublicensable license, under the Liquidia Technology for the sole purpose of carrying out GSK's obligations and research rights under the Inhaled Plan, which license shall become effective on the Effective Date and shall expire upon the earlier of the expiration of the Inhaled Collaboration Term (as may be extended under Section 3.3) or GSK's exercise of the Inhaled Option. The license grant in this Section 5.1 will include the right to have made Research Materials as further described in Section 5.2(c)(i).

5.2 Development and Commercial Licenses.

(a) Liquidia Respiratory License. Upon GSK's exercise of the Liquidia Respiratory Option pursuant to Section 4.1(c) and subject to the terms and conditions of this Agreement, Liquidia shall be deemed to have granted and hereby grants to GSK an exclusive, worldwide, royalty bearing license, with the right to grant sublicenses solely as provided in Section 5.4, under the Liquidia Technology and Liquidia's interest in and to Joint Inhaled Collaboration Patents and Joint Inhaled Collaboration Know-How and Liquidia's interest in and to Joint Vaccine Collaboration Know-How and Joint Vaccine Collaboration Patents to make, have made, use, sell, offer for sale and import the Liquidia Respiratory Product in the Liquidia Respiratory Field in the Territory (the "**Liquidia Respiratory License**").

(b) Inhaled License. Upon GSK's exercise of the Inhaled Option pursuant to Section 4.2(b) and subject to the terms and conditions of this Agreement, Liquidia shall be deemed to have granted and hereby grants to GSK an exclusive, worldwide, royalty bearing license, with the right to grant sublicenses solely as provided in Section 5.4, under the Liquidia Technology, Liquidia's interest in and to Joint Inhaled Collaboration Patents and Joint Inhaled Collaboration Know-How and Liquidia's interest in and to Joint Vaccine Collaboration Know-How and Joint Vaccine Collaboration Patents to make, have made, use, sell, offer for sale and import Research Products and Inhaled Products (which, for clarity, excludes the Liquidia Respiratory Product) in the Inhaled Field in the Territory (the **"Inhaled License"**).

(c) Additional License Terms. Notwithstanding anything to the contrary herein, the use of the terms "have made" and "make" in the license granted to GSK under

Section 5.1, as well as the Liquidia Respiratory License in Section 5.2(a) and the Inhaled License in Section 5.2(b), shall be subject to the additional terms and restrictions set forth below.

(i) GSK's license under Section 5.1 to "have made" Research Materials shall be limited to the right to engage a Third Party reasonably acceptable to Liquidia to make Research Materials using PRINT molds supplied by Liquidia (including the right to manufacture PRINT Material) if Liquidia cannot fulfill its obligation to supply Research Materials under Section 9.1(a); provided, that such Third Party shall not have the right to use or access PRINT Tooling unless Liquidia also fails to supply PRINT molds as described above, in which case, Liquidia also shall provide PRINT Tooling to such Third Party. In addition, the foregoing right to "have made" shall apply only when the Parties reasonably agree, based on discussion at the JSC as described in Section 2.1(d)(viii), that engagement of a Third Party as described above is more likely to decrease the delay of conducting the Inhaled Plan due to lack of supply of PRINT Materials and Research Materials than allowing Liquidia to cure such inability to supply.

(ii) GSK's right to "make" and "have made" Liquidia Respiratory Product, Research Products and Inhaled Products as set forth in Sections 5.2(a) and (b) shall be limited as follows:

(A) after exercise of the Liquidia Respiratory Option or Inhaled Option, as applicable, GSK shall have the right to make, and to engage a Third Party reasonably acceptable to Liquidia to make, the Liquidia Respiratory Product or Research Products, as applicable, using PRINT molds supplied by Liquidia (including the right to manufacture PRINT Material), if Liquidia cannot or does not supply PRINT Materials or Research Products in accordance with an agreed Development Supply Agreement, as required for GSK to develop the Liquidia Respiratory Product or Research Products; provided that GSK and such Third Party shall not have access to or the right to use PRINT Tooling under this Section 5.2(c)(ii)(A), subject to Section 5.2(c)(ii)(B);

(B) after exercise of the Liquidia Respiratory Option or Inhaled Option, as applicable, GSK shall have the right to make, and to engage a Third Party reasonably acceptable to Liquidia to make, the Liquidia Respiratory Product or Research Products, as applicable, using PRINT and PRINT Tooling if either (1) the conditions of Section 5.2(c)(ii)(A) are met and Liquidia does not or cannot supply PRINT molds as set forth in Section 5.2(c)(ii)(A), or (2) the Parties cannot agree to the terms of a Development Supply Agreement; and

(C) after exercise of the Liquidia Respiratory Option or Inhaled Option, as applicable, and either (1) failure of Liquidia to fulfill its obligations under the Commercial Supply Agreement described in Section 9.2, including manufacture in accordance with GMP and GSK's quality standards, (2) the Parties' inability to agree on commercially reasonable terms of a Commercial Supply Agreement, or (3) GSK's assessment, in its sole discretion, that Liquidia shall not be GSK's supplier (in which case no Commercial Supply Agreement will be entered into between GSK and Liquidia), then, in each case, GSK shall have the right to make, and to engage a Third Party to make the Liquidia Respiratory Product, Research Products or Inhaled Products, as applicable, using PRINT and PRINT Tooling

(including the right to manufacture PRINT Material) for development of Research Products that require commercial grade supply or for development and commercialization of Inhaled Products.

5.3 Liquidia Retained Rights. Notwithstanding the licenses granted to GSK in Sections 5.1 and 5.2 above, and to GSK Bio in Sections 5.1 and 5.2 of the Vaccine Collaboration Agreement, Liquidia retains the following: (a) the right to practice the Liquidia Technology to exercise its rights or to fulfill its obligations under this Agreement and the Vaccine Collaboration Agreement; and (b) the exclusive right to practice and license the Liquidia Technology outside the scope of the rights granted to GSK in this Agreement and GSK Bio in the Vaccine Collaboration Agreement.

5.4 Sublicense Rights.

(a) GSK shall have the right to grant sublicenses of the licenses granted in Section 5.2 to its Affiliates (for so long as such entity remains an Affiliate) or Third Parties. GSK shall remain responsible for all of its sublicensees' activities and any and all failures by its sublicensees to comply with the applicable terms of this Agreement.

(b) GSK shall promptly notify Liquidia of any material sublicense to a Third Party and provide Liquidia with a true and complete copy of such sublicense agreement; provided, that GSK shall be permitted to redact all financial information from such sublicense agreement and each such sublicense agreement will be considered the Confidential Information of GSK. Each such sublicense agreement shall be consistent with the terms and conditions of this Agreement and shall include the following terms and conditions:

(i) the sublicensee shall be bound by and subject to all applicable terms and conditions of this Agreement in the same manner and to the same extent as GSK is bound thereby; and

(ii) GSK and Liquidia shall have the same rights, ownership and/or licenses to all Know-How generated by such sublicensee to the same extent as if such Know-How was generated by GSK.

5.5 Licenses Under GSK Technology. Subject to the terms and conditions of this Agreement, GSK hereby grants to Liquidia (a) a non-exclusive, worldwide license, under GSK Technology for the sole purpose of carrying out Liquidia's obligations under the Inhaled Plan, which license shall become effective on the Effective Date and shall expire upon the expiration of the Inhaled Collaboration Term; and (b) a non-exclusive, worldwide license, with the right to grant sublicenses through multiple tiers, under the PRINT Improvements for uses outside the Exercised Fields. In the event that Liquidia or its Affiliates or sublicensees sells any product that utilizes PRINT Improvements licensed to Liquidia, then GSK shall be entitled to receive a royalty of [***] percent ([***]%) of net sales of such products sold by or on behalf of Liquidia, and [***] percent ([***]%) of any payments (including royalties, fees and milestones) received by Liquidia from its sublicensees on the sale of any such product, on a country-by-country basis, commencing upon the First Commercial Sale of such product in any country and expiring upon the date that is ten (10) years after the First Commercial Sale of the product in such country. Thereafter, the license granted by GSK under Section 5.5(b) shall continue and become

perpetual, royalty free and fully paid. In addition, if it is necessary for Liquidia to obtain a license from a Third Party in order to practice the PRINT Improvements in order to sell such product, then the payment due to GSK shall be reduced by an amount equal to [***] percent ([***]%) of the license payments paid by Liquidia to such Third Party pursuant to such license on account of such sale; and provided further that, in no event shall the amount due to GSK be reduced to less than [***] percent ([***]%) of the payment otherwise due to GSK on such sale in any particular calendar quarter, and Liquidia shall have the right to carry forward to subsequent calendar quarters any Third Party payment deductions that Liquidia is unable to deduct.

5.6 No Implied Licenses. Except as explicitly set forth in this Agreement, neither Party shall be deemed by estoppel or implication to have granted the other Party any option, license or other right to any intellectual property right of such Party. Neither Party shall, nor permit any of its Affiliates or sublicensees to, practice any intellectual property rights licensed to it by the other Party outside the scope of the licenses granted to it under this Agreement.

5.7 UNC and Third Party Agreements.

(a) GSK acknowledges and agrees that it has received an unredacted copy of the UNC License, UNC Research Agreement and UNC Material Transfer Agreement, as well as a partially redacted copy of the Consulting Agreement. GSK further acknowledges that Liquidia has the right to extend the term of the UNC Research Agreement to enable UNC to conduct further research

under the applicable Research Program (as defined in the UNC Research Agreement), subject to the conditions set forth in this Agreement. Any and all research to be conducted by UNC or by the Consultant under the Research Program, under the UNC Material Transfer Agreement or under the Consulting Agreement that would otherwise be within the Inhaled Field or Co-Delivery Vaccine Field shall be discussed at the JSC as provided in Section 2.1 (for so long as the JSC is in existence, and thereafter the Parties shall discuss between them or at the Advisory Council as reasonably required), and Liquidia shall acquire an exclusive license to any and all University Inventions, inventions made under the UNC Material Transfer Agreement and inventions made under the Consulting Agreement, that are necessary or useful in the Inhaled Field or Co-Delivery Vaccine Field (including inventions that fall outside the Inhaled Field or Co-Delivery Vaccine Field but are related to General Biological Effects). Liquidia shall not authorize or enable any Third Party (other than UNC) to conduct research using PRINT or PRINT Materials in the Inhaled Field or Co-Delivery Vaccine Field, and shall ensure that UNC and the Consultant do not enable a Third Party (other than UNC) to conduct research using PRINT or PRINT Materials in the Inhaled Field or Co-Delivery Vaccine Field, in either case, without the prior written consent of GSK. If UNC or Consultant desires to enter into an agreement with a Third Party relating to PRINT or PRINT Materials outside the Inhaled Field or Co-Delivery Vaccine Field, then, unless GSK and Liquidia mutually determine otherwise, Liquidia shall obtain a non-exclusive, sublicensable, royalty free license to any inventions made by such Third Party under such agreement prior to Liquidia giving consent for UNC or Consultant to enter into such Third Party agreement. Upon GSK's request, Liquidia shall use Commercially Reasonable Efforts to acquire an exclusive license to inventions arising from research conducted by Third Parties outside the Inhaled Field and Co-Delivery Vaccine Field, if such inventions are related to General Biological Effects. Any University Inventions or Third Party inventions or inventions covered by the Consulting Agreement or UNC Material Transfer

Agreement for which Liquidia obtains ownership or Control as described in this Section 5.7 (including control through a non-exclusive sublicenseable license), and that are Liquidia Know-How or are encompassed within Liquidia Patents shall be, and are, automatically included in the Inhaled License or Liquidia Respiratory License to the extent the Inhaled Option or Liquidia Respiratory Option, respectively, has been exercised by GSK, without further action by the Parties or payment by GSK. GSK hereby acknowledges and agrees that GSK's rights to some such inventions arising from UNC Third Party research activities may be limited to non-exclusive rights.

5.8 Liquidia Technology Transfer. Promptly following the exercise of the Liquidia Respiratory Option and/or Inhaled Option, as the case may be, and no later than ninety (90) days following such exercise, to the extent not previously transferred and delivered to GSK, Liquidia shall transfer and deliver to GSK, Liquidia Technology and Joint Inhaled Collaboration Know-How and Joint Vaccine Collaboration Know-How in its Control, to enable GSK to practice under the Liquidia Respiratory License and/or Inhaled License as contemplated under this Agreement; provided, that transfer, if any, of PRINT, PRINT Tooling and Know-How covering the manufacture by or on behalf of GSK of PRINT Material, Research Materials, Research Products, Inhaled Products and the Liquidia Respiratory Product pursuant to Article 9 and Section 5.2 shall be governed by Section 9.3 and not by this Section 5.8. After the transfer described above, Liquidia shall use Commercially Reasonable Efforts to cooperate with GSK to provide GSK with any additional Liquidia Technology, to the extent not previously transferred and delivered to GSK, to which Liquidia obtains Control as it may be developed, identified or exist and that is included within the scope of the Liquidia Respiratory License or Inhaled License, as the case may be. Costs of technology transfers under this Section 5.8 shall be borne by Liquidia.

5.9 Data Exchange in Absence of Option Exercise. In the event that GSK exercises one of, but not both, the Inhaled Option or the Liquidia Respiratory Option under this Agreement, then GSK shall promptly provide Liquidia with copies of Joint Inhaled Collaboration Know-How that is not already in its possession and Liquidia shall have the right to use and reference all such Joint Inhaled Collaboration Know-How in the Retained Field. **"Retained Field"** means the Liquidia Respiratory Field if the Liquidia Respiratory Option is not exercised by GSK or the Inhaled Field if the Inhaled Option is not exercised by GSK.

ARTICLE 6
PRODUCT DEVELOPMENT

6.1 General. After the exercise of the Liquidia Respiratory Option or the Inhaled Option, as applicable, GSK shall be solely responsible for the continued development of the Liquidia Respiratory Product or Research Products in the applicable Exercised Field, at GSK's cost and expense, subject to the supply by Liquidia of GSK's requirements for PRINT Materials, Liquidia Respiratory Product and/or Research Products as set forth in Section 9.1(b).

6.2 Diligence. After the exercise of the Inhaled Option or Liquidia Respiratory Option, as applicable, GSK shall use Commercially Reasonable Efforts to develop and seek Regulatory Approval in the Territory, for the Liquidia Respiratory Product and Research Products in the applicable Exercised Field(s). Without limiting the foregoing, if GSK exercises the Inhaled Option and fails to initiate any Clinical Trial on at least [***] Research Product in

the Inhaled Field within six (6) years after the Effective Date (such event, a "**Development Delay**"), GSK shall provide Liquidia with a written explanation of the Development Delay for the applicable Research Products. If the Development Delay was not caused solely or primarily for valid scientific reasons (which would include issues with respect to safety and efficacy as well as delays due to feedback from Regulatory Authorities, whether related to the PRINT Material used in the Research Product or the GSK Material contained in the Research Product), then Liquidia shall have the right, but not the obligation, to convert the Inhaled License to a non-exclusive license upon written notice to GSK; provided, that conversion of the Inhaled License to non-exclusive shall be Liquidia's sole and exclusive remedy in the event of a Development Delay and Liquidia shall not have the right to terminate this Agreement in accordance with Section 15.3; and provided, further that if the Development Delay is caused by the failure of Liquidia or its contract manufacturer to provide GSK with its required supply of PRINT Materials or Research Products then Liquidia shall not have the right to convert the Inhaled License to non-exclusive. In addition, and notwithstanding anything to the contrary, GSK's obligation to use Commercially Reasonable Efforts is agreed by the Parties to be dependent upon GSK's timely receipt of GSK's requirements of viable PRINT Materials or Research Products that meet all applicable specifications agreed to by the Parties and/or Liquidia's third party contract manufacturer. Any failure to timely deliver PRINT Materials or Research Products to GSK as described above by Liquidia or a third party contract manufacturer, and any subsequent delays or modifications to GSK's development plans with respect to any Research Product resulting from such failure to supply shall not be deemed to be GSK's failure to use Commercially Reasonable Efforts under this Section 6.2.

6.3 Development Records and Reports. GSK shall maintain complete, current and accurate records of all development activities conducted by it hereunder, and all data and other Know-How resulting from such activities in accordance with the principles set forth in Section 3.5(b) and 3.6. Upon expiration of the JSC Term, at Liquidia's request, which request shall not be made more frequently than annually until such earlier time as GSK either files the first NDA for a particular Research Product or ceases development of a particular Research Product, GSK shall provide Liquidia with written reports summarizing the material activities of GSK with respect to the development of such Research Product in the Territory, to enable Liquidia to determine GSK's compliance with its diligence obligations hereunder; provided, that GSK shall not be required to provide any confidential or proprietary information regarding any GSK Material, whether owned by GSK or licensed to GSK by a Third Party. If Liquidia has any questions with respect to the information set forth in any report provided by GSK under this Section 6.3, then Liquidia shall direct such questions to GSK's Alliance Manager and GSK shall make reasonably available to Liquidia appropriate technical or scientific personnel who are knowledgeable about the development activities conducted by GSK with respect to the Research Products that are the subject of the report, to respond to such questions in a timely manner, via teleconference, in person or such other mode of communication as the Parties may mutually agree, subject always to the proviso set forth in the preceding sentence.

ARTICLE 7
REGULATORY MATTERS

7.1 Regulatory Responsibilities.

(a) GSK Responsibilities. After the exercise of the Liquidia Respiratory Option or the Inhaled Option, GSK shall be solely responsible, at its expense, for preparing, filing and maintaining Regulatory Materials for the Research Products and Products. GSK shall own all Regulatory Materials for the Research Products and Products.

(b) Liquidia Responsibilities. Notwithstanding the foregoing, (i) to the extent applicable in the event that Liquidia is responsible for the manufacture and supply of the PRINT Materials and the same PRINT Material is used in more than one Research Product or Products, Liquidia shall be responsible, at its cost, for the preparation, filing and maintenance of the Drug Master File(s) related to PRINT and PRINT Materials (the **"PRINT DMF"**), and GSK shall be permitted to review and cross-reference the PRINT DMF in its Regulatory Materials and filings for Research Products and Products, and (ii) in the event that filing of a PRINT DMF is not applicable, Liquidia shall make available to GSK all required chemistry, manufacturing and controls (**"CMC"**) data, at

Liquidia's cost, related to PRINT and PRINT Materials required for filing with the applicable Regulatory Authorities in connection with the Research Products and Products, and GSK shall use such CMC data solely for such purpose in accordance with the terms and conditions of this Agreement including the scope of the license grant. At Liquidia's reasonable request, GSK shall provide Liquidia, at GSK's cost, with all required assistance with respect to the preparation, filing and maintenance of the PRINT DMF that GSK intends to cross-reference. Liquidia shall keep GSK informed of any changes to the PRINT DMF (or CMC data in the event that PRINT DMF is not applicable) to enable GSK to update its Regulatory Materials and filings related to Research Products and Products in a timely manner. To the extent either Party receives communications and/or responses from any Regulatory Authority with respect to the PRINT DMF or CMC data, such Party shall inform and consult with the other Party with respect to such communications and responses, and to the extent permitted by applicable Laws, the other Party shall be permitted to attend as an announced but silent observer, any meetings between such Party and Regulatory Authorities that are related to the PRINT DMF or CMC data as they relate to Research Product or Products.

7.2 Regulatory Matters. GSK shall keep Liquidia reasonably informed of all material regulatory developments relating to the safety of the PRINT Materials used in the Research Products or Products, shall promptly notify Liquidia each time the PRINT DMF is cross-referenced by GSK in its Regulatory Filings, and shall provide Liquidia with copies of the portion of such Regulatory Filing that is related to the safety of the PRINT Materials or the PRINT DMF. In addition, GSK shall promptly notify Liquidia of the filing of MAAs and receipt of Regulatory Approvals in the United States, any Major EU Market and Japan. Each Party shall provide the other Party with reasonable advance notice of all material meetings and planned discussions scheduled with the FDA or EMA concerning a Research Product or Product that are expected to relate to the safety of the PRINT Materials or PRINT DMF, and each Party shall provide the other Party with all reasonable assistance, at the other Party's request and at the providing Party's cost, with respect to the other Party's preparation for such meeting or discussion within a reasonable timeframe any technical information related to PRINT or the PRINT Material used in the applicable Research Product or Product that would be necessary or useful to such meeting or discussion. Each Party shall consider in good faith any input from the other Party in preparing for such meetings or discussions. To the extent permitted by applicable Laws, the other Party shall have the right to attend as an announced but silent observer any such

meetings or discussions solely to the extent relevant to the safety of PRINT Materials or PRINT DMF. If the other Party does not attend such meetings or discussions, such Party shall provide the other Party with written summaries of such meetings or discussions with respect to the safety of PRINT Materials or PRINT DMF as soon as practicable after the conclusion thereof.

7.3 Notification of Threatened Action. Except as provided in Section 7.4, GSK or Liquidia, as the case may be, shall immediately notify the other Party of any information it receives regarding any threatened or pending action, inspection or communication by or from any Third Party, including a Regulatory Authority, which may materially affect the development, commercialization or regulatory status of any Research Product or Product, or which may materially affect PRINT, PRINT Tooling or the PRINT Material. Upon receipt of such information, the Parties shall consult with each other in an effort to coordinate, to the extent reasonably necessary on appropriate action.

7.4 Adverse Event Reporting. If GSK exercises the Inhaled Option or Liquidia Respiratory Option, then GSK and Liquidia shall enter into a written pharmacovigilance agreement prior to GSK commencing the first Phase I Clinical Trial with the Liquidia Respiratory Product or the first Research Product, as the case may be, setting forth mutually acceptable guidelines and procedures for the receipt, investigation, recordation, and communication of adverse events and safety data that relate to the PRINT Material. Such guidelines and procedures shall be in accordance with, and enable the Parties to fulfill, each Party's reporting obligations under applicable Laws. Each Party shall comply with its respective obligations under such pharmacovigilance agreement and shall cause its Affiliates and permitted sublicensees to comply with such obligations. GSK shall be responsible for creating and maintaining a global safety database for each Research Product and Product in the applicable Exercised Field, at GSK's expense. GSK shall be responsible for reporting quality complaints, adverse events and safety data related to each Research Product or Product to applicable Regulatory Authorities, as well as responding to safety issues and to all requests of Regulatory Authorities relating to the Research Products and Products; provided that Liquidia shall cooperate as required by GSK to the extent the foregoing are related to PRINT or the PRINT Materials and will supply GSK with all information requested by GSK to allow GSK to fulfill its reporting obligations hereunder. GSK will provide Liquidia with reasonable access to such safety database and promptly report any adverse events related to the PRINT Materials reasonably in advance of any reporting to the applicable Regulatory Authority where practical.

7.5 Remedial Actions. GSK shall have the right to decide whether any recall, corrective action or other regulatory action with respect to any Product taken by virtue of applicable Laws (a "**Remedial Action**") with respect to Products should be commenced, with advance notice, if reasonably practicable, to Liquidia; provided, that GSK shall have the right to make the final decision, in GSK's sole discretion, regarding whether or not any Product shall be recalled. GSK shall bear the costs of any Remedial Action except for any Remedial Action that is initiated due to a defect arising solely from Liquidia's (or a Third Party's on behalf of Liquidia) failure to manufacture, test, package, store, label, release or deliver any PRINT Materials or Products in compliance with the applicable specifications, quality agreement, GMP and/or applicable Laws, in which case Liquidia shall (a) bear all reasonable costs of the administration of such Remedial Action, and (b) reimburse GSK for (i) the price paid by GSK to

Liquidia for the PRINT Materials contained in such recalled Product, (ii) the actual costs for shipping (including freight and insurance), applicable transit charges, insurance premiums, duties, or taxes paid in connection with such recalled Product, and (iii) all direct manufacturing costs (labor and material charges at cost with no mark-up) incurred by GSK to re-manufacture any recalled Product.

ARTICLE 8
COMMERCIALIZATION

8.1 Responsibility; Diligence. After the exercise of the Liquidia Respiratory Option or the Inhaled Option, GSK will be solely responsible for, and use Commercially Reasonable Efforts to, commercialize the Liquidia Respiratory Product and each Inhaled Product in the applicable Exercised Field in countries in which Regulatory Approval is obtained. Such commercialization may include the following activities, conducted by or on behalf of GSK, in GSK's sole discretion; provided, nothing in this Agreement obligates GSK to conduct any of the following specific commercialization activities with respect to the Liquidia Respiratory Product or any Inhaled Product: (a) developing and executing a commercial launch strategy and plan for the Liquidia Respiratory Product and each such Inhaled Product; (b) negotiating with applicable Governmental Authorities regarding the price and reimbursement status of the Liquidia Respiratory Product and Inhaled Product; (c) marketing and promotion; (d) booking sales and distribution and performance of related services; (e) handling all aspects of order processing, invoicing and collection, inventory and receivables; and (f) providing customer support, including handling medical queries, and performing other related functions. GSK shall keep Liquidia reasonably informed on the commercialization of the Liquidia Respiratory Product and each Inhaled Product, including annual written reports summarizing significant commercialization activities for the Liquidia Respiratory Product and each Inhaled Product.

ARTICLE 9
MANUFACTURE AND SUPPLY

9.1 Research and Development Supply.

(a) Research Materials. Liquidia will be responsible for, and shall use Commercially Reasonable Efforts to, manufacture and supply all of the PRINT Materials and Research Materials reasonably required by GSK and Liquidia to carry out the Inhaled Plan as described therein; provided, that the costs and expenses in connection therewith shall be included in Collaboration Costs, subject to the limitations set forth in Section 3.4. Liquidia shall not be required to provide GSK with GMP supply of PRINT Materials and Research Materials during the Inhaled Collaboration Term prior to GSK's exercise of the Inhaled Option unless otherwise agreed by the Parties. If the JSC determines, due to an inability of Liquidia to timely manufacture and supply PRINT Materials and Research Materials reasonably required by GSK and Liquidia to carry out the Inhaled Plan (including GMP compliant PRINT Materials and Research Materials, if agreed by the Parties), that there shall be a manufacturing technology transfer as described in Sections 2.1(d)(viii) and 5.2(c)(i) and not an extension of the Inhaled Collaboration Term as described in Section 3.3(c), then GSK shall select a Third Party manufacturer that is reasonably acceptable to Liquidia to manufacture and supply GSK's requirements of PRINT Materials and Research Materials for the Inhaled Plan and Liquidia shall

initiate a technology transfer of PRINT (but not the PRINT Tooling) to such Third Party and continue to provide PRINT molds to such Third Party to enable such Third Party to make Research Materials; provided, that if Liquidia fails to supply PRINT molds, then Liquidia also shall provide PRINT Tooling to such Third Party. For clarity, the technology transfer described in Sections 9.1(a), 5.2(c)(i) and 9.3 shall not apply if Liquidia's lack of timely manufacture and supply of PRINT Materials and Research Materials as described above is due primarily to technical or scientific infeasibility, for example, with respect to creating the PRINT Materials or Research Materials contemplated under the Inhaled Plan. Alternatively, the technology transfer described in this Section 9.1(a) may apply, after discussion at the JSC, if Liquidia's lack of timely manufacture and supply of PRINT Materials and Research Materials is due primarily to, for example, Liquidia's failure to fulfill its manufacture and supply

obligations with respect to PRINT Materials or Research Materials that are technically or scientifically feasible in amounts contemplated under the Inhaled Plan, or an operational failure of PRINT that the JSC determines can be remedied faster by consummating a manufacturing technology transfer to a Third Party.

(b) Research Products. Liquidia will be responsible for manufacture and supply in accordance with GMP and GSK's quality standards all of the PRINT Materials, Liquidia Respiratory Product and/or Research Products (as applicable) reasonably required by GSK, its Affiliates and sublicensees for use in the development of the Research Products after the exercise of the Inhaled Option or Liquidia Respiratory Option and before the commencement of the first pivotal Clinical Trial for which Regulatory Authorities require commercial grade supply of the Liquidia Respiratory Product or Research Product, subject to and in accordance with the commercially reasonable terms and conditions of a clinical development and supply agreement to be mutually agreed and negotiated by the Parties (the **"Development Supply Agreement"**). The Parties will use reasonable efforts to negotiate the commercially reasonable terms of the Development Supply Agreement promptly after the exercise of the Inhaled Option and/or Liquidia Respiratory Option, as the case may be, which shall include provisions consistent with GSK's rights set forth in Section 5.2(c)(ii) in the event that Liquidia cannot or does not supply in accordance with the terms of such Development Supply Agreement; provided, that if the Parties cannot agree to the terms of a Development Supply Agreement then GSK's right to make and have made PRINT Materials, Liquidia Respiratory Product and/or Research Products as set forth in Sections 5.2(a), 5.2(b) and 5.2(c)(ii) shall apply.

9.2 Commercial Supply. GSK shall have the right to conduct a new contractor assessment of Liquidia to determine, in its sole discretion, that Liquidia is acceptable to GSK for the purposes of supplying PRINT Materials, Liquidia Respiratory Product, Research Products and Inhaled Products (but only if Inhaled Products are the same as Research Products and do not require further formulation or other work in order to be considered appropriate for commercial supply and development requiring commercial grade supply) for clinical trials requiring commercial grade supply and, if applicable, for further formulation work by GSK or a Third Party as Inhaled Products for commercialization on a worldwide basis. Such assessment of Liquidia's manufacturing capabilities will be conducted at the appropriate time to allow for technology transfer, if required, prior to manufacture of pivotal clinical trial material.

(a) If GSK determines in its sole discretion, based on GSK standard assessment criteria for contract manufacturing organizations, that Liquidia is acceptable to GSK

for the supply of PRINT Materials, Liquidia Respiratory Product, Research Products and/or Inhaled Products, as applicable, for the purposes described above in this Section 9.2, then subject to Section 9.2(b), Liquidia will be responsible for manufacture and supply in accordance with GMP and GSK's quality standards all of the PRINT Materials, Research Products, Liquidia Respiratory Product and/or Inhaled Products (as applicable) required by GSK, its Affiliates and sublicensees, subject to and in accordance with the commercially reasonable terms and conditions of a commercial supply agreement to be mutually agreed and negotiated by the Parties (the **"Commercial Supply Agreement"**). Consistent with GSK's rights as set forth in Section 5.2, such Commercial Supply Agreement shall provide that if Liquidia is unable to supply PRINT Materials, Liquidia Respiratory Product, Research Products or Inhaled Products as required by GSK, its Affiliates and sublicensees under the terms of the Commercial Supply Agreement, then upon GSK's request, Liquidia shall commence a technology transfer to GSK or GSK's Third Party manufacturer of PRINT, PRINT Tooling and any other information and technology reasonably necessary for GSK or GSK's Third Party manufacturer to manufacture and supply such requirements of the PRINT Materials, Liquidia Respiratory Product, Research Products or Inhaled Products. The Parties shall use Commercially Reasonable Efforts to jointly develop and complete a detailed technology transfer project plan within thirty (30) days after GSK's request to Liquidia to commence such technology transfer.

(b) If GSK determines in its sole discretion, based on GSK standard assessment criteria for contract manufacturing organizations, that Liquidia is either (i) not acceptable to GSK, or (ii) acceptable to GSK but GSK elects not to use Liquidia for supply for strategic business reasons, in either case for the supply of PRINT Materials, Liquidia Respiratory Product, Research Products and Inhaled Products for the purposes described above in this Section 9.2, then consistent with GSK's rights as set forth in Section 5.2, Liquidia shall commence a technology transfer to GSK or GSK's Third Party manufacturer of PRINT, PRINT Tooling and any other information and technology reasonably necessary for GSK or GSK's Third Party manufacturer to manufacture and supply such requirements of the PRINT Materials, Liquidia Respiratory Product, Research Products or Inhaled Products. The Parties shall use Commercially Reasonable Efforts to jointly develop and complete a detailed technology transfer project plan within thirty (30) days after GSK's request to Liquidia to commence such technology transfer. Solely in the event the circumstances set forth in Section 9.2(b)(ii) occur, the provisions of Section 10.6 shall apply.

9.3 Manufacturing Technology Transfer. To the extent a technology transfer to GSK or a Third Party contract manufacturer is required pursuant to Sections 9.1 or 9.2 above, then Liquidia shall conduct such technology transfer in accordance with a reasonable plan to be agreed between the Parties, and shall pay for such technology transfer during the agreed upon technology transfer period. Thereafter, GSK shall bear the cost of such technology transfer; provided, that Liquidia has used Commercially Reasonable Efforts to comply with the technology transfer plan within the agreed period of time; and provided further that if Liquidia does not use Commercially Reasonable Efforts to comply with the technology transfer plan within the agreed period of time, then Liquidia shall bear the costs of the remaining period of time applicable to such technology transfer. Notwithstanding the foregoing, if GSK has determined that it or a Third Party will be responsible for manufacture as set forth in Sections 9.2 and 5.2(c)(ii)(C)(2), then GSK shall bear the cost of such technology transfer, subject to

Liquidia's use of Commercially Reasonable Efforts to comply with the agreed technology transfer plan. Liquidia's obligation to transfer PRINT or PRINT Tooling (as applicable) shall only apply in the event that GSK has the right to make or have made the Research Materials, Liquidia Respiratory Product, Research Product and/or Inhaled Product using PRINT or PRINT Tooling under this Article 9 and Section 5.2.

9.4 U.S. Manufacturing Waiver. Promptly upon GSK's request, Liquidia shall use reasonable efforts to obtain a waiver to any requirement that Research Products or Products must be manufactured in the U.S. (including the requirements set forth in 35 U.S.C. §200 et seq. (the **"Bayh-Dole Act"**)) or to satisfy an applicable exception to such requirement. Liquidia will provide GSK with copies of all documents to be submitted in seeking such waiver in sufficient time for GSK to review and comment on the documents before their submission, and Liquidia shall incorporate GSK's reasonable comments and recommendations into such document. If such waiver is not obtained reasonably promptly after GSK's request, and such delay was not the result of GSK's failure to perform in accordance with this Section 9.4, then any such delay in commencing clinical trials shall not be deemed to be a Development Delay in accordance with Section 6.2.

9.5 No Product Formulation. Nothing in this Agreement shall be construed as requiring Liquidia to conduct, or requiring GSK to engage Liquidia to conduct, activities that may be necessary or useful to formulate Research Products into Inhaled Products suitable for sale by GSK, its Affiliates or sublicensees.

ARTICLE 10
COMPENSATION

10.1 Upfront Payment and Equity Investment.

(a) In partial consideration of the rights granted to GSK hereunder, GSK shall pay to Liquidia a one-time, non-refundable and non-creditable upfront payment of four million Dollars ($4,000,000). Such payment shall be payable by wire transfer of immediately available funds in accordance with wire transfer instructions of Liquidia provided in writing to GSK on or prior to the Effective Date. Such payment shall be made within ten (10) Business Days after GSK's receipt of an invoice from Liquidia on or after the Effective Date, which invoice shall be sent in PDF format to [***] with a copy to [***] and the Alliance Manager.

(b) Concurrent with the execution of this Agreement and the Vaccine Collaboration Agreement, in partial consideration of the rights granted to GSK under this Agreement, GSK and Liquidia shall enter into the Stock Purchase Agreement attached hereto as Exhibit D, pursuant to which GSK shall purchase from Liquidia and Liquidia shall sell to GSK 4,765,248 shares of Liquidia's Series C-1 preferred stock at a purchase price of $0.79744 per share for a total investment of $3,799,999.37.

10.2 Reimbursement of Collaboration Costs. Within fifteen (15) days after the end of each calendar quarter during the Inhaled Collaboration Term, Liquidia shall submit to GSK a reasonably detailed report and any additional documentation reasonably requested by GSK, setting forth all Collaboration Costs actually incurred by Liquidia in the conduct of the Inhaled Program in accordance with the Inhaled Plan and associated budget during such calendar quarter.

GSK shall reimburse Liquidia for the Collaboration Costs incurred as set forth in such report; provided, that any Collaboration Costs incurred in excess of [***] percent ([***]%) of the budgeted Collaboration Costs for the applicable quarter shall be borne by Liquidia unless such overage was approved in advance by the JSC. Notwithstanding the foregoing, any Collaboration Costs that are

incurred by Liquidia as a result of Liquidia's failure to use Commercially Reasonable Efforts or due to Liquidia's negligence, whether or not such Collaboration Costs are in excess of [***] percent ([***]%) of the budget for the applicable quarter, shall be borne entirely by Liquidia. GSK shall reimburse such Collaboration Costs within sixty (60) days after receipt of an invoice from Liquidia, which invoice shall be sent in PDF format to [***] with a copy to [***] (or such other email address(es) as may be notified to Liquidia by GSK). For the avoidance of doubt, the Collaboration Costs reimbursed to Liquidia by GSK shall be used by Liquidia solely to cover the costs of the conduct of the Inhaled Plan that are incurred after the Effective Date.

10.3 Option Exercise Fees.

(a) Within sixty (60) days following receipt of an invoice from Liquidia following Liquidia's receipt of the Respiratory Option Notice from GSK as set forth in Section 4.1(c), which invoice shall be sent in PDF format to [***] with a copy to [***] (or such other email address(es) as may be notified to Liquidia by GSK), GSK shall pay to Liquidia a one-time, non-refundable and non-creditable option exercise fee of ten million Dollars ($10,000,000).

(b) Within sixty (60) days following receipt of an invoice from Liquidia following Liquidia's receipt of the Inhaled Option Notice from GSK as set forth in Section 4.2(b), which invoice shall be sent in PDF format to [***] with a copy to [***] (or such other email address(es) as may be notified to Liquidia by GSK), GSK shall pay to Liquidia a one-time, non-refundable and non-creditable option exercise fee of fifteen million Dollars ($15,000,000).

10.4 Milestone Payments for Inhaled Field and Liquidia Respiratory Field.

(a) If GSK exercises the Liquidia Respiratory Option and/or the Inhaled Option, then subject to the remainder of this Section 10.4, GSK shall make each of the following non-refundable, non-creditable milestone payments to Liquidia, for the Liquidia Respiratory Product, and on a Research Product-by-Research Product basis or on an Inhaled Product-by-Inhaled Product basis, as applicable, upon achievement of the applicable development milestone events:

	Milestone Payments for Liquidia Respiratory Product, Research Products and Inhaled Products	
Milestone Events	**For New Therapeutic Products**	**For Rescue Therapeutic Products and Liquidia Respiratory Product**
First dosing of First Patient in Phase I Clinical Trial	$ 3,000,000	$ [***]
First dosing of First Patient in Phase II Clinical Trial	$ [***]	$ [***]
First dosing of First Patient in Phase III Clinical Trial	$ [***]	$ [***]
NDA/BLA approval by FDA with an Acceptable Label	$ [***]	$ [***]
MAA approval by EMA with an Acceptable Label, including price and reimbursement approval at a level acceptable to GSK, in the first three (3) of five (5) Major EU Markets	$ [***]	$ [***]
Total Milestone Payments for the Liquidia Respiratory Product or per Research Product or Inhaled Product, as applicable (subject to Section 10.4(b) below):	$ [***]	$ [***]

(b) The milestone payments set forth above in Section 10.4(a) shall be payable on the Liquidia Respiratory Product and the first [***] Research Products or Inhaled Products, as applicable (regardless of whether the Research Product or Inhaled Product is a New Therapeutic Product or Rescue Therapeutic Product) that achieve such milestone events; provided that the milestone payments for the [***] Research Products or Inhaled Products, as applicable, shall be reduced to [***]percent ([***]%) of the amounts set forth above in Section 10.4(a). In addition, in the event of a Development Delay and the subsequent conversion of GSK's Inhaled License to non-exclusive license in accordance with Section 6.2, the milestone payment for milestone events achieved by any Research Product or Inhaled Product, as applicable, after such conversion shall be reduced to [***] percent ([***]%) of the amount otherwise due. For clarity, no milestone payment shall be due for the [***] and subsequent Research Products or Inhaled Products, as applicable, which achieve the milestone events set forth above. For illustrative purposes only, if the Inhaled License is converted to non-exclusive and the fourth Research Product that is a New Therapeutic Product achieves First dosing in First Patient in Phase III Clinical Trial, then the amount due for such achievement shall be $[***].

(c) If a particular milestone is achieved by GSK, its Affiliates or sublicensees with respect to the Liquidia Respiratory Product or a particular Research Product or Inhaled Product, as applicable (regardless of whether the Research Product or Inhaled Product is New Therapeutic Product or Rescue Therapeutic Product), then all prior milestones for the Liquidia Respiratory Product, Research Product or Inhaled Product, as applicable, shall be deemed achieved upon achievement of that particular milestone. For the avoidance of doubt, GSK will not be responsible for payment of milestones achieved by the Liquidia Respiratory Product unless and until GSK exercises the Liquidia Respiratory Option, and only with respect to those achieved by GSK, its Affiliates or sublicensees after exercise of the Liquidia Respiratory Option. In addition, and subject to the foregoing sentence, all milestones shall be deemed achieved with respect to the Liquidia Respiratory Product or a particular Research Product or Inhaled Product upon the First Commercial Sale of the Liquidia Respiratory Product or the corresponding Inhaled

Product. For clarity, "prior" refers to the relative order in the table above, e.g., "First dosing of First Patient in Phase I Clinical Trial" being "prior" to "First dosing of First Patient in Phase II Clinical Trial".

(d) GSK shall notify Liquidia in writing promptly, but in no event later than ten (10) Business Days after each achievement of each milestone set forth above in this Section 10.4 that triggers a payment. GSK shall pay all such milestone payments due in Dollars within sixty (60) days after GSK's receipt of an invoice from Liquidia following the achievement of the corresponding milestone event. Such invoice shall be sent in PDF format to GSK's Alliance Manager and [***] with a copy to [***] (or such other e-mail address(es) as may be notified to Liquidia by GSK). GSK shall notify Liquidia of any deficiency in any invoice delivered to GSK hereunder promptly, and in no event more than seven (7) Business Days following GSK's receipt thereof.

10.5 Royalties.

(a) Royalty Rates

(i) Liquidia Respiratory Product. If GSK exercises the Liquidia Respiratory Option, then subject to Section 10.5(c) below, GSK shall pay Liquidia non-refundable, non-creditable incremental royalties on worldwide annual Net Sales of the Liquidia Respiratory Product as calculated by multiplying the applicable royalty rate by the corresponding amount of incremental Net Sales of the Liquidia Respiratory Product in each calendar year as follows:

Annual Net Sales of the Liquidia Respiratory Product	**Royalty Rate**
For that portion less than or equal to $[***]	[***]%
For that portion greater than $[***]but less than or equal to $[***]	[***]%
For that portion greater than $[***]	[***]%

(ii) Inhaled Products. If GSK exercises the Inhaled Option, then subject to Section 10.5(c) below, GSK shall pay Liquidia non-refundable, non-creditable incremental royalties on worldwide annual Net Sales on each Inhaled Product, as calculated by multiplying the applicable royalty rate by the corresponding amount of incremental Net Sales of such Inhaled Product in each calendar year as follows:

	Royalty Rate on an Inhaled Product-by-Inhaled Product basis		
Annual Net Sales of Each Inhaled Product	**For the first [***] Inhaled Products**	**For the [***] Inhaled Products**	**For [***] and all subsequent**

	that achieve First Commercial Sale	that achieve First Commercial Sale	Inhaled Products that achieve First Commercial Sale
For that portion less than or equal to $[***]	[***]%	[***]%	[***]%
For that portion greater than $[***]but less than or equal to $[***]	[***]%	[***]%	[***]%
For that portion greater than $[***]	[***]%	[***]%	[***]%

For example, if worldwide annual Net Sales of the first Inhaled Product are $800,000,000, then the royalties payable with respect to such annual Net Sales, subject to adjustment as set forth below, would be [***].

Notwithstanding the foregoing, in the event of a Development Delay and the subsequent conversion of GSK's Inhaled License to non-exclusive as set forth in Section 6.2, the royalty rates for Inhaled Products sold after such conversion shall be reduced to [***] percent ([***]%) of the rate set forth in the table above. By way of illustration only, if a Development Delay occurs and GSK subsequently achieves First Commercial Sale for the first Inhaled Product, then the royalty rates payable on Net Sales of such Inhaled Product would be [***] percent ([***]%) for Net Sales less than or equal to $[***] and [***] percent ([***]%) for Net Sales in excess of $[***], in either case, subject to the reductions set forth below in Section 10.5(c).

(b) Royalty Term. Royalties set forth in Section 10.5(a) shall be paid in accordance with the terms of Section 10.5 (including Section 10.5(c) below), on a country-by-country basis and Product-by-Product basis, commencing on First Commercial Sale of the Product, as the case may be, in such country until the latest of: (i) the expiration of the last-to-expire Valid Claim in such country that, but for the Inhaled License granted in Section 5.2(b) or the Liquidia Respiratory License granted in Section 5.2(a), would be infringed by the sale or approved method of use of the Product; (ii) the expiration of Regulatory Exclusivity in such country covering the Product; and (iii) the tenth (10^{th}) anniversary of the First Commercial Sale of the Product in such country, but in no event later than December 31, 2045 (the "**Royalty Term**").

(c) Royalty Reductions.

(i) Know-How Royalty. On a country-by-country and Product-by-Product basis, if the Product is generating Net Sales in a country during the applicable Royalty Term and the sale or approved method of use of the Product does not infringe any Valid Claim in

such country, then the royalty rate applicable to Net Sales of the Product in such country shall be reduced to [***]percent ([***]%) of the royalty rate set forth above in Section 10.5(a) (as reduced by conversion to a non-exclusive license pursuant to a Development Delay, if applicable).

(ii) Generic Competition. On a country-by-country and Product-by-Product basis, if the Product is generating Net Sales in a country during the applicable Royalty Term and a Generic Product with respect to the Product is sold in such country, then the royalty rate applicable to Net Sales of the Product in such country shall be reduced to [***]percent ([***]%) of the royalty rate set forth above in Section 10.5(a) (as reduced by conversion to a non-exclusive license pursuant to a Development Delay, if applicable), commencing with the Net Sales made after the first calendar quarter during which the unit volume of all such Generic Products sold by Third Parties in such country exceeds, in each month during such calendar quarter, [***]percent ([***]%) of the combined unit volume of the Product and such Generic Product sold in such month in such country. All such determinations of unit volume shall be based on a mutually acceptable calculation method and using market share data provided by a reputable and mutually agreed upon provider, such as IMS Health.

(iii) Third Party Royalties.

(A) First Product. If it is necessary for GSK, as determined by GSK in its sole discretion, to obtain a license from a Third Party to avoid infringing a Third Party Patent in connection with practicing PRINT or using the PRINT Material contained in the first Product sold under this Agreement, then GSK shall have the right to deduct from the royalties otherwise due to Liquidia on the sale of such Product an amount equal to [***] percent ([***]%) of the royalty payment paid by GSK to such Third Party pursuant to such license on account of such sale; provided, that GSK shall not be permitted to deduct royalties payable to Third Parties in an amount that would reduce the royalty rate payable to Liquidia by more than [***] percent ([***]%), subject always to Section 10.5(c)(iv) below. GSK shall have the right to carry forward against royalties payable on the sale of such first product in a subsequent calendar quarter any Third Party payment reduction that GSK is unable to take on such first product due to such limitation, subject to the limitation set forth in the proviso in the preceding sentence.

(B) Subsequent Products. If it is necessary for GSK, as determined by GSK in its sole discretion, to obtain a license from a Third Party to avoid infringing a Third Party Patent in connection with the sale of Products sold under this Agreement (other than the first Product for which deduction of Third Party royalties are governed by Section 10.5(c)(iii)(A)), then GSK shall have the right to deduct from the royalties otherwise due to Liquidia on the sale of such Product an amount equal to [***]percent ([***]%) of the royalty payment paid by GSK to such Third Party pursuant to such license on account of such sale; provided, that GSK shall not be permitted to deduct royalties payable to Third Parties in an amount that would reduce the royalty rate payable to Liquidia by more than [***] percent ([***]%), subject always to Section 10.5(c)(iv) below. GSK shall have the right to carry forward against royalties payable on the sale of such product in a subsequent calendar quarter any Third Party payment reduction that GSK is unable to take on such product due to such limitation, subject to the limitation set forth in the proviso in the preceding sentence.

For illustrative purposes only of Section 10.5(c)(iii)(B) above, if GSK owes Liquidia a royalty rate of [***] percent ([***]%) of Net Sales on a Product, and also owes a royalty rate of [***] percent ([***]%) of Net Sales to a Third Party, then GSK shall be entitled to deduct from royalties payable to Liquidia an amount equal to [***] percent ([***]%) of Net Sales. If GSK owes Liquidia a royalty rate of [***] percent ([***]%) of Net Sales on a Product, and also owes a royalty rate of [***] percent ([***]%) of Net Sales to a Third Party, then GSK shall be entitled to deduct from royalties payable to Liquidia an amount equal to [***] percent ([***]%) of Net Sales.

(C) Combination Product Limitations. With respect to any Products that are Combinations and that are subject to the provisions of Section 10.5(c)(iii)(B) (i.e. not the first Product launched under this Agreement), GSK shall not deduct royalties due to Third Parties with respect to active ingredients comprising the Combination that (1) are not associated with or contained in the PRINT Material, and (2) have been taken into account in the calculation of Net Sales in accordance with Section 1.109.

(iv) Limitations on Royalty Reductions. Notwithstanding the foregoing, the operation of Sections 10.5(c)(i), (ii) and (iii), individually or in combination, shall not reduce any royalty rate due under Section 10.5(a) (as reduced by conversion to a non-exclusive license pursuant to a Development Delay, if applicable) to less than [***] percent ([***]%) (or [***] percent ([***]%) in the event of conversion to a non-exclusive license pursuant to a Development Delay).

(d) Royalty Reports and Payments. Within sixty (60) days following the end of each calendar quarter, commencing with the calendar quarter in which the First Commercial Sale of any Product is made anywhere in the world, GSK shall provide Liquidia with a report setting forth the Net Sales of each Product on a country-by-country basis and the royalties due on such Products. Concurrent with the delivery of the applicable quarterly report, GSK shall pay in Dollars all amounts due to Liquidia pursuant to Section 10.5 with respect to Net Sales by GSK, its Affiliates and their respective sublicensees for such calendar quarter.

10.6 COGS Payments. If the circumstances set forth in Section 9.2(b)(ii) occur, and GSK or a Third Party is responsible for manufacture of PRINT Materials, Liquidia Respiratory Product, Research Products or Inhaled Products, then GSK would make payments to Liquidia on a quarterly basis, concurrent with the royalty report and payment described in Section 10.5(d), in an amount equal to [***]percent ([***]%) of GSK's COGS solely related to the manufacture of PRINT Materials for the preceding calendar quarter. Such payments shall be made to Liquidia on an Inhaled Product-by-Inhaled Product basis, on up to [***] ([***]) Inhaled Products, and shall commence with the first full calendar quarter in which there are Net Sales of the first Inhaled Product, and quarterly thereafter for a period of [***] ([***]) years.

10.7 Blocked Currency. If at any time legal restrictions within any country in which there are Net Sales of a Product prevent the conversion of the local currency and such currency cannot be removed from such country such that prompt remittance by GSK of any royalties owed in respect of Net Sales in such country is prevented, then GSK shall make payment to Liquidia in the equivalent amount in Dollars.

10.8 Currency; Exchange. All payments under this Agreement shall be made in Dollars by wire transfer of immediately available funds into an account designated in writing by Liquidia. With respect to sales of Products invoiced in Dollars, the Net Sales and the amounts due hereunder will be expressed in Dollars. With respect to sales of Products invoiced in a currency other than Dollars, the Net Sales and amounts due hereunder will be reported in Dollars, calculated using the average exchange rates as calculated and utilized by GSK's group reporting system and published accounts for its own purposes. As of the Effective Date, the method utilized by GSK's group reporting system uses spot exchange rates sourced from Reuters/Bloomberg.

10.9 Late Payments. Any undisputed amount owed by GSK to Liquidia under this Agreement that is not paid on or before the due date shall bear interest at two (2) percentage points over the overnight LIBOR rate in effect on the due date. Where the late payment is caused by Liquidia, including for reasons such as failure to communicate in a timely manner changes to bank details, or failure to respond to communications from GSK regarding the interpretation or dispute of the terms of such payment, then no interest will be payable by GSK.

10.10 Records; Audits. GSK and its Affiliates and sublicensees will maintain complete and accurate records in sufficient detail to permit Liquidia to confirm the accuracy of the calculation of royalties due hereunder. Upon ninety (90) days prior written notice, GSK shall make such records available for examination during regular business hours for a period of three (3) years from the end of the calendar year to which they pertain by an independent certified public accountant selected by Liquidia and reasonably acceptable to GSK, for the sole purpose of verifying the accuracy of the financial reports furnished by GSK pursuant to this Agreement. Such audit right shall not be exercised by Liquidia more than once in any calendar year and the records for a twelve (12) month period may not be audited more than once. All records made available for audit shall be deemed to be Confidential Information of GSK. The results of each audit, if any, shall be binding on both Parties absent manifest error or fraud. Any amounts shown to be owed but unpaid shall be paid within sixty (60) days from receipt by GSK of an invoice from Liquidia based on the accountant's report, plus interest (as set forth in Section 10.9) from the original due date. Liquidia shall bear the full cost of such audit unless such audit discloses an underpayment by GSK of more than five percent (5%) of the amount due, in which case GSK shall bear the full cost of such audit.

10.11 Taxes.

(a) Taxes on Income. Each Party shall be solely responsible for the payment of all taxes imposed on its share of income arising directly or indirectly from the efforts of the Parties under this Agreement.

(b) Cooperation. The Parties agree to cooperate with one another and use reasonable efforts to reduce or eliminate tax withholding or similar obligations in respect of royalties, milestone payments, and other payments made by GSK to Liquidia under this Agreement. To the extent GSK is required to deduct and withhold taxes on any payment to Liquidia, GSK shall pay the amounts of such taxes to the proper Governmental Authority in a timely manner and promptly transmit to Liquidia an official tax certificate or other evidence of such withholding sufficient to enable Liquidia to claim such payment of taxes. Liquidia shall

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

provide GSK any tax forms that may be reasonably necessary in order for GSK not to withhold tax or to withhold tax at a reduced rate under an applicable bilateral income tax treaty. Each Party shall provide the other with reasonable assistance to enable the recovery, as permitted by applicable Laws, of withholding taxes, value added taxes, or similar obligations resulting from payments made under this Agreement, such recovery to be for the benefit of the Party bearing such withholding tax or value added tax. GSK shall require its sublicensees to cooperate with Liquidia in a manner consistent with this Section 10.11(b).

(c) Taxes Resulting From GSK Action. If GSK is required to make a payment to Liquidia that is subject to a deduction or withholding of tax, then (i) if such withholding or deduction obligation arises as a result of any action by GSK, including any assignment or sublicense or transfer of GSK's obligations, or any failure on the part of GSK to comply with applicable Laws or filing or record retention requirements, that has the effect of modifying the tax treatment of the Parties hereto (a "**GSK Withholding Tax Action**"), then the sum payable by GSK (in respect of which such deduction or withholding is required to be made) shall be increased to the extent necessary to ensure that Liquidia receives a sum equal to the sum which it would have received had no such GSK Withholding Tax Action occurred, and (ii) the sum payable by GSK shall be made to Liquidia after deduction of the amount required to be so deducted or withheld, which deducted or withheld amount shall be remitted to the proper Governmental Authority in accordance with applicable Laws. If Liquidia is able to obtain credit for any taxes for which an additional payment is made by GSK under Section 10.11(c) ("**Creditable Taxes**") against any tax liability otherwise payable by Liquidia in the year in which the GSK Withholding Tax Action takes place or any preceding years, Liquidia shall reimburse to GSK an amount equivalent to the Creditable Taxes (but only to the extent of additional amounts received by Liquidia pursuant to Section 10.11(c)). Liquidia shall provide GSK with evidence as GSK may reasonably request to review the amount of any Creditable Taxes; provided, that Creditable Taxes shall be reasonably determined by Liquidia in good faith and may take into account all other tax attributes and items of Liquidia prior to giving effect to any credit for withholding taxes with respect to payments hereunder. If, with respect to the payments contemplated by this Section 10.11 any taxing authority disallows all or a portion of a claimed credit then GSK will pay Liquidia an amount equal to the disallowed claimed credit.

ARTICLE 11
INTELLECTUAL PROPERTY MATTERS

11.1 Ownership of Existing Intellectual Property. Except as set forth below in Section 11.3 and except as such rights are expressly licensed by one Party to the other Party hereunder, Liquidia shall retain all of its rights, title and interest in and to the Liquidia Technology existing prior to the Effective Date or arising outside of this Agreement and the Vaccine Collaboration Agreement, and GSK shall retain all of its rights, title and interest in and to the GSK Technology existing prior to the Effective Date or arising outside of this Agreement and the Vaccine Collaboration Agreement, and in the case of PRINT Improvements, arising under this Agreement after the Inhaled Collaboration Term.

11.2 Disclosure of Know-How. Each Party shall promptly disclose to the other Party all Joint Inhaled Collaboration Know-How and Liquidia Collaboration Know-How, GSK shall promptly disclose to Liquidia all PRINT Improvements, and Liquidia shall promptly disclose to

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

GSK all GSK Collaboration Know-How, including any invention disclosures, or other similar documents, submitted to it by its employees, agents or independent contractors describing the inventions to the extent necessary or useful for the preparation, filing and maintenance of any Joint Inhaled Collaboration Patent, Liquidia Patent or GSK Patent hereunder.

11.3 Ownership of Collaboration Inventions. Notwithstanding Section 11.1, the ownership of all Know-How made by either Party (whether alone or jointly with the other Party) during the performance of its obligations under the Inhaled Plan (the "**Collaboration Know-How**") is as follows:

(a) By Liquidia. Liquidia shall solely own all Collaboration Know-How that solely relates to PRINT and PRINT Tooling ("**Liquidia Collaboration Know-How**"). To the extent any Liquidia Collaboration Know-How is made by GSK, whether solely or jointly with Liquidia, then upon Liquidia's request GSK will transfer and assign, and hereby transfers and assigns to Liquidia, without additional consideration, all of GSK's interest in such Liquidia Collaboration Know-How, which transfer and assignment Liquidia hereby accepts. GSK shall execute and deliver to Liquidia a deed(s) of such assignment, in a mutually agreeable form and will take whatever actions reasonably necessary, including the appointment of Liquidia as its attorney in fact solely to make such assignment, to effect such assignment. For clarity, Liquidia Collaboration Know-How shall include Collaboration Know-How that has general applicability to the function of PRINT, such as improvements to the operational aspects of manufacturing PRINT Materials using PRINT, but does not include Collaboration Know-How relating to General Biological Effects.

(b) By GSK. GSK shall solely own all Collaboration Know-How that solely relates to GSK Materials ("**GSK Collaboration Know-How**"). To the extent any GSK Collaboration Know-How is made by Liquidia, whether solely or jointly with GSK, then upon GSK's request Liquidia will transfer and assign and hereby transfers and assigns to GSK, without additional consideration, all of Liquidia's interest in such GSK Collaboration Know-How, which transfer and assignment GSK hereby accepts. Liquidia shall execute and deliver to GSK a deed(s) of such assignment, in a mutually agreeable form and will take whatever actions reasonably necessary, including the appointment of GSK as its attorney in fact solely to make such assignment, to effect such assignment.

(c) Joint Ownership. Any Collaboration Know-How that is not included in either Liquidia Collaboration Know-How or GSK Collaboration Know-How shall be jointly owned by the Parties (**"Joint Inhaled Collaboration Know-How"**). To the extent any Joint Inhaled Collaboration Know-How is made solely by a Party, such Party hereby transfers and assigns to the other Party, without additional consideration, one undivided half of such Party's interest in such Joint Inhaled Collaboration Know-How, which transfer and assignment the other Party hereby accepts. Each Party shall execute and deliver to the other Party a deed(s) of such assignment, in a mutually agreeable form and will take whatever actions reasonably necessary (including the appointment of the other Party as its attorney in fact solely to make such assignment) to effect such assignment. For clarity, Joint Inhaled Collaboration Know-How shall include Collaboration Know-How that relates to General Biological Effects, and Collaboration Know-How that relates to the use of the combination of the PRINT Materials and GSK Materials; provided, that nothing herein shall be construed as requiring GSK to provide, or grant

any rights to Liquidia to, any GSK Materials for purposes of enabling Liquidia's practice of the Joint Inhaled Collaboration Know-How except as may be required to conduct its activities under the Inhaled Plan. Subject to the terms of this Agreement, each Party shall be entitled to practice and exploit the Joint Inhaled Collaboration Know-How without the duty of accounting or seeking consent from the other Party.

11.4 Use and Disclosure of Joint Inhaled Collaboration Know-How.

(a) Subject to Sections 11.4(b) and 11.4(c) below and the Parties' rights and obligations to prepare, file, prosecute and maintain Joint Inhaled Collaboration Patents, GSK Patents or Liquidia Patents hereunder, neither Party shall disclose to, or use with any Third Party (other than as otherwise permitted in this Agreement in connection with each Party's rights and obligations) (i) any Joint Inhaled Collaboration Know-How resulting from the Inhaled Plan before the exercise or expiration of the Inhaled Option; or (ii) any Joint Vaccine Collaboration Know-How resulting from the Vaccine Plan before exercise or expiration of the Vaccine Option under the Vaccine Collaboration Agreement. For clarity, (1) each Party shall have the right to use Joint Inhaled Collaboration Know-How for internal research purposes during the Inhaled Collaboration Term, (2) subject to Section 11.4(b) below, neither Party shall have the right to grant non-exclusive or exclusive licenses to any Third Party for any reason to its interests in the Joint Inhaled Collaboration Know-How during the Inhaled Collaboration Term, and (3) each Party may use (A) Joint Inhaled Collaboration Know-How to perform its obligations under the Vaccine Plan and (B) Joint Vaccine Collaboration Know-How to perform its obligations under the Inhaled Plan.

(b) Liquidia shall have the right to use Joint Inhaled Collaboration Know-How and to disclose Joint Inhaled Collaboration Know-How to Third Parties at any time (provided that any Third Party receiving Joint Inhaled Collaboration Know-How shall be bound by obligations of confidentiality and non-use similar to those contained herein): (i) for the furtherance of its obligations under the BMGF Letter Agreement and the Research Collaboration Agreement between Liquidia and PATH Vaccine Solution ("**PVS**"), dated November 1, 2011 (the "**PVS Agreement**"), as such obligations exist on the Effective Date; (ii) for future agreements with government and Non-Governmental Organizations for purposes of grant funding; provided that no such agreement shall affect the rights granted or obligated to GSK under this Agreement (subject to Section 5.7(b) of the Vaccine Collaboration Agreement); (iii) subject to GSK's right of first negotiation set forth in Section 4.3, for uses other than any vaccines applications and the Inhaled Field to the extent the Joint Collaboration Inhaled Know-How is independently related to General Biological Effects and has broad applicability to therapeutic uses other than vaccines applications or the Inhaled Field as determined by the JPC; and (iv) for internal research purposes with respect to Excluded Applications, Liquidia Retained Product, Liquidia Respiratory Product and other Liquidia products outside the Inhaled Field or Co-Delivery Vaccine Field so long as such product research and development is not conducted with a Third Party.

(c) GSK shall have the right to use any Joint Inhaled Collaboration Know-How or Joint Vaccine Collaboration Know-How in support of the prosecution and maintenance of (i) Patents claiming the Joint Inhaled Collaboration Know-How (the **"Joint Inhaled Collaboration Patents"**) or (ii) Joint Vaccine Collaboration Patents. Notwithstanding Section

11.4(b), Liquidia shall have the right, subject to GSK's consent (not to be unreasonably withheld or delayed) to use any Joint Inhaled Collaboration Know-How or Joint Vaccine Collaboration Know-How in support of the prosecution and maintenance of any Liquidia Patents; provided that if GSK so consents, then Liquidia shall be deemed to have granted and hereby grants to GSK a non-exclusive, royalty free, perpetual, worldwide license, with the right to grant sublicenses through multiple tiers, under any Liquidia Patent, the prosecution of which was supported by Joint Collaboration Inhaled Know-How or Joint Vaccine Collaboration Know-How, including all foreign counterparts of such Liquidia Patent, for use in the Inhaled Field and Co-Delivery Vaccine Field. For clarity, Liquidia shall have the right to use any Liquidia Know-How and Liquidia Collaboration Know-How in support of the prosecution and maintenance of any Liquidia Patents without giving rise to any such license to GSK.

11.5 Prosecution of Patents.

(a) Liquidia Patents.

(i) Subject to the oversight of the JPC, Liquidia shall have the first right to prepare, file, prosecute and maintain all Liquidia Patents at its sole cost and expense. Liquidia shall provide GSK, for its review and comment, with drafts of any material filings or responses to be made to any patent authority with respect to Liquidia Patents at least thirty (30) days in advance of intended submission or as soon as possible if Liquidia has less than thirty (30) days to make such submission, and shall provide GSK with copies of material filings with and communication from patent authorities with respect to Liquidia Patents. Liquidia shall reasonably consider incorporating GSK's comments thereto. Liquidia shall respond to all reasonable requests of GSK for additional Know-How with respect to all such prosecution and maintenance efforts.

(ii) If Liquidia decides to cease the prosecution or maintenance of any claim in a Liquidia Patent, it shall notify GSK in writing sufficiently in advance so that GSK may, at its discretion, assume the responsibility for the prosecution or maintenance of such Liquidia Patent, at GSK's cost and expense. GSK shall notify Liquidia of its decision to assume the responsibility of such prosecution and/or maintenance within thirty (30) days of Liquidia's notice to cease such activities. If, within such time, Liquidia has not received notice of GSK's decision to assume prosecution and maintenance Liquidia shall be free to cease such prosecution and maintenance.

(b) Joint Inhaled Collaboration Patents.

(i) Subject to the oversight of the JPC, GSK shall have the first right to prepare, file, prosecute and maintain any Joint Inhaled Collaboration Patents, at GSK's cost and expense; provided that GSK may credit one half (1/2) of the reasonable cost and expense incurred in connection with the preparation, filing, prosecution and maintenance of any Joint Inhaled Collaboration Patent against any payment due to Liquidia under Section 10.3, 10.4, 10.5, or 10.6. GSK shall provide Liquidia, for its review and comment, with drafts of any material filings or responses to be made to any patent authority with respect to Joint Inhaled Collaboration Patents at least thirty (30) days in advance of intended submission, or as soon as possible if GSK has less than thirty (30) days to make such submission, and shall provide

Liquidia with copies of material filings with and communication from patent authorities with respect to Joint Inhaled Collaboration Patents. Liquidia shall provide comments in due time before the submission date (taking into account the time difference between EST, GMT or CET time zones). GSK shall respond to all reasonable requests of Liquidia for additional Know-How with respect to all such prosecution and maintenance efforts. GSK shall reasonably consider incorporating Liquidia's comments thereto.

(ii) If GSK decides to cease the prosecution or maintenance of any Joint Inhaled Collaboration Patent, it shall notify Liquidia in writing sufficiently in advance so that Liquidia may, at its discretion, assume the responsibility for the prosecution or maintenance of such Joint Inhaled Collaboration Patent, at Liquidia's cost and expense. Liquidia shall notify GSK of its decision to assume the responsibility of such prosecution and/or maintenance within thirty (30) days of GSK's notice to cease such activities. If, within such time, GSK has not received notice of Liquidia's decision to assume prosecution and maintenance, GSK shall be free to cease such prosecution and maintenance.

(c) GSK Patents. GSK shall have the sole and exclusive right to prepare, file, prosecute and maintain GSK Patents.

(d) Cooperation. Each Party shall provide the other Party all reasonable assistance and cooperation, at the prosecuting Party's request, in the patent prosecution efforts provided above in this Section 11.5, including providing any necessary powers of attorney and executing any other required documents or instruments for such prosecution.

11.6 Enforcement of Patents.

(a) Product Infringement. If either Party becomes aware of (i) any existing or threatened infringement or misappropriation by a Third Party of any Joint Inhaled Collaboration Know-How or Joint Inhaled Collaboration Patents, or any Liquidia Patents or Liquidia Know-How, which infringement or misappropriation of such Liquidia Patents or Liquidia Know-How adversely affects or is reasonably expected to adversely affect any Research Product or Product, or (ii) the submission by any Third Party of an application to the FDA, in accordance with the Hatch-Waxman Act or the Biologics Price Competition and Innovation Act of 2009, for approval of a product that such Third Party claims to be equivalent to, or biosimilar or interchangeable with a Product (in either case of (i) or (ii), a **"Product Infringement"**), then it shall promptly notify the other Party in writing and the Parties will consult with each other regarding any actions to be taken with respect to such Product Infringement.

(b) Liquidia Patents.

(i) Except as set forth below in subsection (ii), Liquidia shall have the sole and exclusive right, but not the obligation, to bring an appropriate suit or other action (an **"Action"**) against any person or entity engaged in such Product Infringement of the Liquidia Patents.

(ii) After the First Commercial Sale of a Product, if the only Patents covering or claiming the applicable Product are the Liquidia Patents that are the subject of the

Product Infringement, then GSK shall have the first right, but not the obligation, to bring an Action against any person or entity engaged in such Product Infringement of the Liquidia Patents. If GSK fails to commence such an Action to enforce the applicable Liquidia Patent or to settle or otherwise secure the abatement of such Product Infringement within fourteen (14) days after its receipt or delivery of notice under Section 11.6(a), then Liquidia shall have the right, but not the obligation, to commence an Action to enforce the applicable Liquidia Patent, in which case GSK shall take reasonably appropriate action to enable Liquidia to commence and/or settle such Action.

(iii) The Party bringing the Action (the **"Enforcing Party"**) shall keep the other Party regularly informed of the status and progress of such enforcement efforts and shall reasonably consider the other Party's comments on any such efforts. The non-Enforcing Party shall provide to the Enforcing Party reasonable assistance in such enforcement pursuant to this Section 11.6(b), at the Enforcing Party's reasonable request and expense, including joining the Action as a party plaintiff if required by applicable Laws to pursue such Action.

(iv) Notwithstanding the provisions of 11.6(b)(ii) and (iii) above, if there is a Change of Control of Liquidia and subsequently a Product Infringement occurs with respect to a Product for which the only Patents covering or claiming the applicable Product are the Liquidia Patents that are the subject of the Product Infringement, then GSK and the Acquiror shall discuss whether GSK shall control such Action in accordance with Sections 11.6(b)(ii) and (iii) or whether GSK and the Acquiror shall negotiate a common interest agreement as described below. If the Parties agree to enter into a common interest agreement, then they shall negotiate the terms thereof in good faith as quickly as possible and in any event in a manner that will not prejudice the Action, which terms shall include, *inter alia*, selection of counsel, litigation and technology support services related to the Action, settlement of the Action, and sharing of costs of counsel and litigation and technology support services. GSK and the Acquiror shall reasonably consider the engagement of GSK's preferred legal providers and litigation and technology support services, as well as the advantages to each of GSK and the Acquiror entering into direct retention agreements with such legal counsel. For the avoidance of doubt, if the Acquiror elects not to participate in the Action or negotiate the terms of a common interest agreement, then GSK shall have full control as set forth above under 11.6(b)(ii) and (iii).

(c) Joint Inhaled Collaboration Patents.

(i) GSK shall have the first right, but not the obligation, to bring an Action against any person or entity engaged in a Product Infringement of the Joint Inhaled Collaboration Patents. GSK shall keep Liquidia regularly informed of the status and progress of such enforcement efforts and shall reasonably consider Liquidia's comments on any such efforts. Liquidia shall provide to GSK reasonable assistance in such enforcement pursuant to this Section 11.6(c), at GSK's request and expense, including joining such Action as a party plaintiff if required by applicable Laws to pursue such Action. Liquidia shall be entitled to separate representation in such matter by counsel of its own choice and at its own expense.

(ii) GSK shall have a period of ninety (90) days after its receipt or delivery of notice under Section 11.6(a) to elect to so enforce the Joint Inhaled Collaboration Patents against Product Infringement or to settle or otherwise secure the abatement of such

Product Infringement. If GSK fails to commence an Action to enforce the applicable Joint Inhaled Collaboration Patents or to settle or otherwise secure the abatement of such Product Infringement within such period, then Liquidia shall have the right, but not the obligation, to commence an Action to enforce such Joint Inhaled Collaboration Patents at its own cost and expense. GSK shall take reasonably appropriate actions to enable Liquidia to commence an Action as set forth in the preceding sentence.

(iii) A settlement or consent judgment or other voluntary final disposition of an Action under this Section 11.6(c) may be entered into without the consent of the non-Enforcing Party; provided, that any such settlement, consent judgment or other disposition of any Action by the Enforcing Party under this Section 11.6(c) shall not, without the consent of the non-Enforcing Party, (a) impose any liability or obligation on such non-Enforcing Party, (b) include the grant of any license, covenant or other rights to any Third Party that would conflict with or reduce the scope of the subject matter included under the exclusive licenses granted to such non-Enforcing Party under this Agreement, or (c) conflict with or reduce the scope of the subject matter claimed in any Patent owned (solely or jointly, including Joint Inhaled Collaboration Patents) by the non-Enforcing Party.

(d) Expenses and Recoveries. The Enforcing Party bringing an Action under Section 11.6(b) or 11.6(c) shall be solely responsible for any expenses incurred by such Party as a result of such Action. If such Party recovers monetary damages in such Action, such recovery shall be allocated first to the reimbursement of any expenses incurred by the Parties in such litigation, and any remaining amounts shall be allocated as follows: (i) regardless of which Party is the Enforcing Party, any remaining amounts that represent loss of Net Sales resulting from the Product Infringement shall be included in Net Sales for the relevant Product and subject to the royalty payment by GSK to Liquidia pursuant to Section 10.5, and (ii) all other remaining amounts (including treble damages and punitive damages) shall be shared equally by GSK and Liquidia; provided, that if GSK fails to commence an Action as described in Section 11.6(b)(ii) or 11.6(c)(ii) above and Liquidia subsequently becomes the Enforcing Party, then the remaining amounts described in this Section 11.6(d)(ii) shall be retained by Liquidia.

(e) Other Infringement.

(i) Liquidia shall have the sole and exclusive right to bring an Action against any person or entity engaged in any and all infringement of any Liquidia Patents other than a Product Infringement, in its sole discretion, and shall bear all related expenses and retain all related recoveries.

(ii) GSK shall have the sole and exclusive right to bring an Action against any person or entity engaged in any and all infringement of any GSK Patents, in its sole discretion, and shall bear all related expenses and retain all related recoveries.

11.7 Patents Licensed From UNC. With respect to Liquidia Patents that are Controlled by Liquidia as a result of its exclusive license to such Liquidia Patents under the UNC License Agreement, and for which Liquidia has the right to direct UNC's prosecution thereof under Article 8 of the UNC License Agreement, Liquidia shall cause UNC to file, prosecute, and maintain such Liquidia Patents as reasonably requested by GSK via the JPC in each mutually

agreed country in the Territory, Liquidia's agreement not to be unreasonably withheld. Liquidia shall promptly furnish to GSK upon receipt from UNC or have furnished directly to GSK from UNC copies of all patents, patent applications, substantive patent office actions, and substantive responses received or filed in connection with such patents and patent applications. Liquidia shall cause UNC to reasonably consider and incorporate all input, comments and suggestions of GSK via the JPC on all such patent applications and communications with patent offices, provided that such requests and comments by GSK shall not trigger the license described in Section 11.4(c). Liquidia shall promptly provide notice to GSK as to all matters that come to its attention that may materially affect the preparation, filing, prosecution or maintenance of any such Liquidia Patents by UNC.

11.8 Infringement of Third Party Rights. Subject to Article 13, if any Research Product or Product used or sold by GSK, its Affiliates or sublicensees becomes the subject of a Third Party's claim or assertion of infringement of a Patent of such Third Party with respect to the GSK Materials comprising such Research Product or Product and not the PRINT Materials in such Research Product or Product, then the Party that becomes aware of such claim or assertion shall promptly notify the other Party and GSK shall be solely responsible for the defense of any such infringement claims, at GSK's cost and expense. Subject to Article 13, if any Research Product or Product used or sold by GSK, its Affiliates or sublicensees becomes the subject of any such claim or assertion of infringement of a Third Party patent with respect to the PRINT Materials used in the Research Product or Product, then the Parties shall agree on and enter into a "common interest agreement" wherein the Parties agree to their

shared, mutual interest in the outcome of such potential dispute, and thereafter, the Parties shall promptly meet to consider the claim or assertion and the appropriate course of action, including which Party will have responsibility for the defense of such claim and bear the costs thereof.

11.9 Trademarks. GSK shall have the right to brand the Products using trademarks and trade names it determines appropriate for the Products in its sole discretion, which may vary by country or within a country ("**Product Marks**"); provided, that GSK shall not, and shall ensure that its Affiliates and sublicensees will not make any use of the trademarks or house marks of Liquidia (including Liquidia's corporate name) or any trademark confusingly similar thereto. GSK shall own all rights in the Product Marks and shall register and maintain, at its own cost and expense, the Product Marks in the countries and regions that it determines reasonably necessary. For the avoidance of doubt, Liquidia shall not, and shall ensure that its Affiliates and sublicensees will not make any use of the Product Marks, or any trademarks or house marks of GSK or any of its Affiliates (including GSK's corporate name) or any trademark confusingly similar thereto.

ARTICLE 12
REPRESENTATIONS AND WARRANTIES; COVENANTS

12.1 Mutual Representations and Warranties. Each Party hereby represents and warrants to the other Party as follows:

(a) Corporate Existence. As of the Effective Date, it is a company or corporation duly organized, validly existing, and in good standing under the Laws of the jurisdiction in which it is incorporated.

(b) Corporate Power, Authority and Binding Agreement. As of the Effective Date, (i) it has the corporate power and authority and the legal right to enter into this Agreement and perform its obligations hereunder; (ii) it has taken all necessary corporate action on its part required to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder; and (iii) this Agreement has been duly executed and delivered on behalf of such Party, and constitutes a legal, valid, and binding obligation of such Party that is enforceable against it in accordance with its terms.

12.2 Additional Representations and Warranties of Liquidia. Liquidia represents and warrants to GSK as follows, as of the Effective Date:

(a) It Controls PRINT, PRINT Tooling, PRINT Materials and the Liquidia Technology, and has all rights necessary under the Liquidia Technology to grant the options, licenses and other rights to GSK as purported to be granted pursuant to this Agreement;

(b) It Controls, or has the right to Control, any Patents or Know-How arising from activities conducted by UNC or the Consultant under the UNC Research Agreement, the UNC Material Transfer Agreement and the Consulting Agreement in accordance with the terms of such agreements;

(c) It has not received any written notice from any Third Party asserting or alleging that the development or practice of the Liquidia Technology infringes or misappropriates the intellectual property rights of such Third Party, and to its knowledge, GSK's practice of the rights granted to GSK hereunder do not infringe the intellectual property rights of any Third Party;

(d) There are no pending, and to Liquidia's knowledge, no threatened, adverse actions, suits or proceedings against Liquidia involving any Liquidia Technology;

(e) Except as set forth on Exhibit B, it has not granted any right or license to any Third Party relating to any of the Liquidia Know-How or Liquidia Patents that would conflict with any of the rights or licenses granted to GSK hereunder and prohibit GSK from exercising such rights;

(f) It has disclosed to GSK all material information received by Liquidia concerning the institution of any interference, opposition, reexamination, reissue, revocation, or nullification or any official proceeding involving any Liquidia Patent anywhere in the Territory (for the avoidance of doubt, the phrase "official proceeding" as used herein is not intended to mean ordinary prosecution and maintenance activities);

(g) It has provided GSK with a complete and accurate copy of the UNC License Agreement and UNC Research Agreement, as each such agreement is in effect as of the Effective Date, and Liquidia is not aware of any current material breach of the UNC License Agreement or UNC Research Agreement that would give UNC the right to terminate the same;

(h) To its knowledge, it is not in violation of any Anti-Corruption Laws;

(i) It acknowledges receipt of GSK's "Prevention of Corruption — Third Party Guidelines" which are attached hereto as Exhibit E, and agrees to perform its obligations under the Agreement in accordance with the principles set out therein;

(j) It acknowledges that, in entering into this Agreement, GSK has relied upon information supplied by Liquidia and information which Liquidia has caused to be supplied to GSK by Liquidia's agents and/or representatives regarding PRINT and PRINT Materials, pursuant to the Confidentiality Agreement (all of such information being hereinafter referred to collectively as **"Product Information"**). Liquidia represents and warrants to GSK that, to Liquidia's knowledge, the Product Information provided to GSK in connection with this Agreement is accurate in all material respects. Liquidia further warrants and represents to GSK that it has not, as of the Effective Date, intentionally omitted to furnish GSK with any material information known to Liquidia concerning PRINT or PRINT Materials or the transactions contemplated by this Agreement, which would reasonably be considered to have a materially adverse effect on PRINT, PRINT Materials or the performance of the Inhaled Plan; and

(k) UNC has reviewed the terms of this Agreement and has consented to any inconsistencies between the terms, conditions and limitations of this Agreement and the UNC License Agreement.

12.3 Liquidia Covenant; Mutual Covenants.

(a) No Debarment. In the course of the research or development of the Research Products, each Party shall not use any employee or consultant who has been debarred by any Regulatory Authority, or, to such Party's knowledge, is the subject of debarment proceedings by a Regulatory Authority. Each Party shall notify the other Party promptly upon becoming aware that any of its employees or consultants has been debarred or is the subject of debarment proceedings by any Regulatory Authority.

(b) Compliance. Each Party and its Affiliates shall comply in all material respects with all applicable Laws in the development and commercialization of Research Products and Products and performance of its obligations under this Agreement, including the statutes, regulations and written directives of the FDA, the EMA and any other applicable Regulatory Authority, the FD&C Act, the Prescription Drug Marketing Act, the Federal Health Care Programs Anti-Kickback Law, 42 U.S.C. 1320a-7b(b), the statutes, regulations and written directives of Medicare, Medicaid and all other health care programs, as defined in 42 U.S.C. § 1320a-7b(f), and Anti-Corruption Laws, each as may be amended from time to time.

12.4 Disclaimer. Each Party understands that PRINT Tooling, PRINT, the PRINT Materials, GSK Materials, Research Materials and Research Products are the subject of ongoing research and development and that neither Party can assure the safety or usefulness of PRINT Tooling, PRINT, PRINT Materials, GSK Materials, Research Materials or Research Products. In addition, Liquidia makes no warranties except as set forth in this Article 12 concerning the Liquidia Technology. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, EACH PARTY SPECIFICALLY DISCLAIMS ANY GUARANTEE THAT THE INHALED PLAN WILL BE SUCCESSFUL, IN WHOLE OR IN PART. EXCEPT AS EXPRESSLY STATED IN THIS AGREEMENT, NO REPRESENTATIONS OR WARRANTIES

WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR NON-MISAPPROPRIATION OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, ARE MADE OR GIVEN BY OR ON BEHALF OF A PARTY, AND ALL REPRESENTATIONS AND WARRANTIES, WHETHER ARISING BY OPERATION OF LAW OR OTHERWISE, ARE HEREBY EXPRESSLY EXCLUDED.

ARTICLE 13
INDEMNIFICATION

13.1 Indemnification by Liquidia. Liquidia shall defend, indemnify, and hold GSK and its Affiliates and their respective officers, directors, employees, and agents (the **"GSK Indemnitees"**) harmless from and against any and all liabilities, damages, losses, costs and expenses including the reasonable fees of attorneys (collectively, **"Losses"**), arising out of or resulting from any Third Party suits, claims, actions, proceedings or demands (**"Claims"**) to the extent that such Claims arise out of, are based on, or result from: (a) the breach of any of Liquidia's obligations under this Agreement, including Liquidia's representations and warranties set forth herein; (b) the willful misconduct or grossly negligent acts of Liquidia, its Affiliates, sublicensees, subcontractors, or the officers, directors, employees, or agents of Liquidia or its Affiliates; (c) the conduct of Liquidia's activities under the Inhaled Plan, and/or the failure to manufacture and supply PRINT Materials and Research Materials in accordance with the terms of this Agreement as required for the conduct of the Inhaled Plan, but only to the extent such activities are not performed by GSK's personnel as described in Section 3.4; (d) the research or development of the Liquidia Respiratory Product conducted negligently by or on behalf of Liquidia (excluding any activities conducted by GSK in the event GSK contributes to the research or development of Liquidia Respiratory Product pursuant to Section 4.1(a)); (e) any inconsistencies between the terms, conditions and limitations of the UNC License Agreement and this Agreement which cause GSK's inability to comply with the provisions of the UNC License Agreement as required therein; or (f) any breach by Liquidia or its Affiliates of the UNC License Agreement or UNC Research Agreement, in each case, not attributable to an act or omission of GSK or its Affiliates, or their respective subcontractors or sublicensees. The foregoing indemnity obligation shall not apply to the extent that (i) the GSK Indemnitees fail to comply with the indemnification procedures set forth in Section 13.3 and Liquidia's defense of the relevant Claims is prejudiced by such failure, or (ii) any Claim that arises from, is based on, or results from any activity set forth in Section 13.2 for which GSK is obligated to indemnify the Liquidia Indemnitees. Indemnification related to the manufacture and supply of clinical supply of PRINT Materials and Research Products shall be provided for in the Development Supply Agreement described in Section 9.1(b) and indemnification related to the manufacture and supply of commercial supply of PRINT Materials and Research Products shall be provided for in the Commercial Supply Agreement, if any, described in Section 9.2.

13.2 Indemnification by GSK. GSK shall defend, indemnify, and hold Liquidia and its Affiliates and their respective officers, directors, employees, and agents (the "**Liquidia Indemnitees**") harmless from and against any and all Losses arising out of or resulting from any Claims to the extent that such Claims arise out of, are based on, or result from: (a) the research, use, development, manufacture, commercialization, handling, storage or other disposition of

PRINT Materials, Research Materials, Liquidia Respiratory Product, Research Products and Inhaled Products by or on behalf of GSK or its Affiliates or its or their sublicensees or subcontractors (other than by Liquidia pursuant to the Inhaled Plan), including Claims based upon product liability and intellectual property infringement, but excluding (i) use of PRINT and PRINT Tooling as transferred to GSK or its Third Party contract manufacturer and used in accordance with written instructions provided by Liquidia and (ii) Liquidia's use of the PRINT Improvements that are licensed by GSK to Liquidia; (b) the breach of any of GSK's obligations under this Agreement, including GSK's representations and warranties set forth herein; (c) the willful misconduct or grossly negligent acts of GSK, its Affiliates or its or their sublicensees or subcontractors, or the officers, directors, employees, or agents of GSK or its Affiliates; or (d) the use by Liquidia of GSK Materials in accordance with handling and other written instructions provided by GSK in performing Liquidia's activities under the Inhaled Plan and the negligent conduct of GSK's activities under the Inhaled Plan. The foregoing indemnity obligation shall not apply to the extent that (i) the Liquidia Indemnitees fail to comply with the indemnification procedures set forth in Section 13.3 and GSK's defense of the relevant Claims is prejudiced by such failure, or (ii) any Claim arises from, is based on, or results from any activity set forth in Section 13.1 for which Liquidia is obligated to indemnify the GSK Indemnitees. Indemnification related to the manufacture and supply of clinical supply of PRINT Materials and Research Products shall be provided for in the Development Supply Agreement described in Section 9.1(b) and indemnification related to the manufacture and supply of commercial supply of PRINT Materials and Research Products shall be provided for in the Commercial Supply Agreement, if any, described in Section 9.2.

13.3 Indemnification Procedures. The Party claiming indemnity under this Article 13 (the "**Indemnified Party**") shall give written notice to the Party from whom indemnity is being sought (the "**Indemnifying Party**") promptly after learning of such Claim. The Indemnified Party shall provide the Indemnifying Party with reasonable assistance, at the Indemnifying Party's expense, in connection with the defense of the Claim for which indemnity is being sought. The Indemnified Party may participate in and monitor such defense with counsel of its own choosing at its sole expense; provided, that the Indemnifying Party shall have the right to assume and conduct the defense of the Claim with counsel of its choice. The Indemnifying Party shall not settle any Claim without the prior written consent of the Indemnified Party, not to be unreasonably withheld. So long as the Indemnifying Party is actively defending the Claim in good faith, the Indemnified Party shall not settle or compromise any such Claim without the prior written consent of the Indemnifying Party. If the Indemnifying Party does not assume and conduct the defense of the Claim as provided above, (a) the Indemnified Party may defend against, consent to the entry of any judgment, or enter into any settlement with respect to such Claim in any manner the Indemnified Party may deem reasonably appropriate (and the Indemnified Party need not consult with, or obtain any consent from, the Indemnifying Party in connection therewith), and (b) the Indemnifying Party shall remain responsible to indemnify the Indemnified Party as provided in this Article 13.

13.4 Limitation of Liability. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR INDIRECT DAMAGES (INCLUDING ANY LOSS OF PROFITS, EARNINGS, GOODWILL, SAVINGS OR BUSINESS SUFFERED BY LIQUIDIA OR GSK) ARISING FROM OR

RELATING TO ANY BREACH OF THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 13.4 IS INTENDED TO OR SHALL LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF ANY PARTY UNDER SECTION 13.1 OR 13.2, OR DAMAGES AVAILABLE FOR A PARTY'S BREACH OF CONFIDENTIALITY OBLIGATIONS IN ARTICLE 14.

13.5 Insurance. Each Party shall procure and maintain insurance, or in GSK's case, self-insure, consistent with normal business practices of prudent companies similarly situated at all times during the Term of this Agreement. It is understood that such insurance shall not be construed to create a limit of either Party's liability with respect to its indemnification obligations under this Article 13. Each Party shall provide the other Party with written evidence of such insurance upon request. Each Party shall provide the other Party with written notice at least thirty (30) days prior to the cancellation, non-renewal or material change in such insurance.

ARTICLE 14
CONFIDENTIALITY

14.1 Confidentiality. Each Party agrees that, during the Term and for a period of five (5) years thereafter, it shall keep confidential and shall not publish or otherwise disclose and shall not use for any purpose other than as provided for in this Agreement (which includes the exercise of any rights or the performance of any obligations hereunder) any Confidential Information furnished to it by the other Party pursuant to this Agreement, except to the extent expressly authorized by this Agreement or otherwise agreed in writing by the Parties. The foregoing confidentiality and non-use obligations shall not apply to any portion of the other Party's Confidential Information that the receiving Party can demonstrate by competent written proof:

(a) was already known to the receiving Party or its Affiliate, other than under an obligation of confidentiality, at the time of disclosure by the other Party;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving Party;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving Party in breach of this Agreement;

(d) was disclosed to the receiving Party or its Affiliate on a non-confidential basis by a Third Party who has a legal right to make such disclosure and who did not obtain such information directly or indirectly from the other Party; or

(e) was independently discovered or developed by the receiving Party or its Affiliate without access to or aid, application or use of the other Party's Confidential Information, as evidenced by written records made contemporaneous with such discovery or development and kept in the ordinary course of business, or other similar documentary proof of actual knowledge by the receiving Party.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Notwithstanding the definition of "Confidential Information" in Article 1, all Collaboration Know-How, whether generated by one or both Parties, shall be owned by a Party or the Parties in accordance with Section 11.3. In addition, the exceptions set forth in subsections (a) and (e) shall not apply to Collaboration Know-How, which shall be deemed Confidential Information of the Party that owns such Collaboration Know-How regardless of whether such Collaboration Know-How satisfies the criteria set forth in one or both subsections.

14.2 Authorized Disclosure. Notwithstanding the obligations set forth in Section 14.1, a Party may disclose the other Party's Confidential Information to the extent:

(a) such disclosure is reasonably necessary (i) for the filing or prosecuting Patents as contemplated by this Agreement; (ii) to comply with the requirements of Regulatory Authorities with respect to obtaining and maintaining Regulatory Approval of a Product; or (iii) for prosecuting or defending litigation as contemplated by this Agreement;

(b) such disclosure is reasonably necessary to its employees, agents, consultants, contractors, licensees or sublicensees on a need-to-know basis for the sole purpose of performing its obligations or exercising its rights under this Agreement; provided that in each case, the disclosees are bound by written obligations of confidentiality and non-use consistent with those contained in this Agreement;

(c) such disclosure (including the terms of this Agreement) is reasonably necessary to any bona fide potential or actual investor, acquiror, merger partner, licensee or other financial or commercial partner for the sole purpose of evaluating an actual or potential investment, acquisition or other business relationship; provided that in connection with such disclosure, such Party shall inform each Third Party to whom Confidential Information is disclosed of the confidential nature of such Confidential Information and cause each such Third Party to treat such Confidential Information as confidential; or

(d) such disclosure is reasonably necessary to comply with applicable Laws, including regulations promulgated by applicable security exchanges, court order, administrative subpoena or order.

Notwithstanding the foregoing, in the event a Party is required to make a disclosure of the other Party's Confidential Information pursuant to Section 14.2(a) or 14.2(d), such Party shall promptly notify the other Party such required disclosure and shall use reasonable efforts to obtain, or to assist the other Party in obtaining, a protective order preventing or limiting the required disclosure.

14.3 Technical Publication. Neither Party may publish peer reviewed manuscripts, or give other forms of public disclosure such as abstracts and presentations, of results of studies carried out under the Inhaled Plan, without the opportunity for prior review by the other Party, except to the extent required by applicable Laws. A Party seeking publication shall provide the other Party the opportunity to review and comment on any proposed publication that contains the results of studies carried out under the Inhaled Plan at least sixty (60) days prior to its intended submission for publication; provided, that Liquidia shall not have the right to publish any information or material relating to Inhaled Products, Research Products, Research Materials,

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

GSK Materials, or any results of studies carried out by or on behalf of GSK outside the scope of the Inhaled Plan, without GSK's prior consent. The other Party shall provide the Party seeking publication with its comments in writing, if any, within thirty (30) days after receipt of such proposed publication. The Party seeking publication shall consider in good faith any comments thereto provided by the other Party and shall comply with the other Party's request to remove any and all of such other Party's Confidential Information from the proposed publication. In addition, the Party seeking publication shall delay the submission for a period up to sixty (60) days after the other Party's receipt of the proposed publication in the event that the other Party can demonstrate reasonable need for such delay, including the preparation and filing of a patent application. If the other Party fails to provide its comments to the Party seeking publication within such thirty (30) day period, such other Party shall be deemed not to have any comments, and the Party seeking publication shall be free to publish in accordance with this Section 14.3 after the sixty (60) day period has elapsed. The Party seeking publication shall provide the other Party a copy of the manuscript at the time of the submission. Each Party agrees to acknowledge the contributions of the other Party and its employees in all publications as scientifically appropriate. For the avoidance of doubt, GSK shall not be required to seek Liquidia's review of publications that contain results of studies carried out by or on behalf of GSK outside the scope of the Inhaled Plan. In addition to the foregoing, to the extent Liquidia receives a proposed public disclosure or publication from UNC in accordance with Section 2.2 of the UNC License Agreement or Section 6 of the UNC Research Agreement, then Liquidia shall ensure that GSK is given the opportunity to review and possibly delay such public disclosure or publication in order to protect Liquidia Know-How that may be disclosed in such public disclosure or publication in accordance with the terms of the UNC License Agreement.

14.4 Publicity; Terms of this Agreement.

(a) The Parties agree that the terms of this Agreement are the Confidential Information of both Parties, subject to the special authorized disclosure provisions set forth in this Section 14.4.

(b) On or after the Effective Date, Liquidia shall have the right to issue a public announcement of the execution of this Agreement, in the form agreed by the Parties as of the Effective Date.

(c) Except for the public announcement described in Section 14.4(b), neither Party nor such Party's Affiliates will make any public announcements, press releases, regulatory filing or other public disclosures, written or oral, whether to the public, the press, stockholders or otherwise, concerning this Agreement or the terms or the subject matter hereof, the performance hereof or the Parties' activities hereunder, or any results or data arising hereunder (a **"Public Statement"**), except: (i) with the prior written consent of the other Party (such consent not to be unreasonably delayed or withheld but may be conditional upon certain restrictions as to the content and/or distribution of such Public Statement to ensure consistency with GSK's policies, including GSK's standards for Scientific Engagement); or (ii) for such Public Statements, as in the opinion of the counsel for the Party intending to make such Public Statement, are required to comply with applicable Laws (including the regulations of any stock exchange) (a **"Legal Requirement"**) and which in any event contain only the minimum disclosure necessary to comply with the relevant Legal Requirement.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(d) Each Party agrees to provide the other Party with a copy of any proposed Public Statement as soon as reasonably practicable under the circumstances prior to its scheduled release. Each Party shall provide the other with an advance copy of any such Public Statement at least seven (7) days prior to its scheduled release; provided, that if the Party proposing such Public Statement cannot provide the reviewing Party with seven (7) days notice due to extraordinary circumstances, such Party will use reasonable efforts to provide the reviewing Party with the proposed Public Statement for comment at least forty-eight (48) hours before release. Each Party furthermore shall have the right to review and recommend changes to any such Public Statement and, except as otherwise required by Legal Requirement, the Party whose Public Statement has been reviewed shall remove any Confidential Information of the reviewing Party that the reviewing Party reasonably deems to be inappropriate for disclosure.

(e) In addition to the foregoing each Party agrees to give the other Party a reasonable opportunity (to the extent consistent with Legal Requirements) to review all Public Statements required by Legal Requirements to be filed with the SEC or similar body prior to submission of such filings, and will give due consideration to any reasonable comments by the non-filing Party relating to such filing, including the provisions of this Agreement for which confidential treatment should be sought.

14.5 Clinical Trial Register. Notwithstanding anything in this Article 14, GSK shall have the right to publish summaries of data and results from any human clinical trials conducted under this Agreement on its clinical trials registry or on a government-sponsored database such as www.clinicaltrials.gov or other publicly available websites such as www.clinicalstudyresults.org, without requiring the consent of Liquidia. The Parties shall reasonably cooperate if needed in order to ensure the publication of any such summaries of human clinical trials data and results as required on GSK's clinical trial registry and any government-sponsored database such as clinicaltrials.gov or other publicly available websites such as www.clinicalstudyresults.org.

14.6 Equitable Relief. Each Party acknowledges that its breach of this Article 14 may cause irreparable harm to the other Party, which cannot be reasonably or adequately compensated in monetary damages. Therefore, each Party agrees that the other Party shall be entitled, in addition to any other remedies it may have under this Agreement or otherwise, to seek preliminary and permanent injunctive and other equitable relief to prevent or curtail any actual or threatened breach of the obligations relating to Confidential Information set forth in this Article 14 by the other Party.

ARTICLE 15
TERM AND TERMINATION

15.1 Term. This Agreement shall become effective on the Effective Date and, unless earlier terminated pursuant to this Article 15, shall remain in effect (the "**Term**"):

(a) in the Liquidia Respiratory Field, (i) if GSK does not timely exercise the Liquidia Respiratory Option, then until the expiration of the Liquidia Respiratory Option; or (ii) if GSK timely exercises the Liquidia Respiratory Option, on a country-by-country basis, until the expiration of the Royalty Term of such Liquidia Respiratory Product in such country; and

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(b) in the Inhaled Field, (i) if GSK does not timely exercise the Inhaled Option, then until the expiration of the Inhaled Option; or (ii) if GSK timely exercises the Inhaled Option, on an Inhaled Product-by-Inhaled Product and country-by-country basis, until the expiration of the Royalty Term of such Inhaled Product in such country.

For clarity, if GSK does not timely exercise any option, this Agreement shall expire in its entirety upon the expiration of the last-to-expire option. In addition, in the event the Inhaled Option or Liquidia Respiratory Option are exercised under this Agreement, then upon expiration of all applicable Royalty Terms for Inhaled Products and the Liquidia Respiratory Product, as applicable, GSK shall have a perpetual, fully-paid, royalty-free right and license, with the right to grant sublicenses, under the Liquidia Technology, Joint Inhaled Collaboration Know-How, Joint Inhaled Collaboration Patents and Liquidia's interest in and to the Joint Vaccine Collaboration Know-How and Joint Vaccine Collaboration Patents to make, have made, use, sell, offer to sell and import such Inhaled Product or Liquidia Respiratory Product, as the case may be, in the applicable Exercised Field.

15.2 Termination by GSK for Convenience. GSK may terminate this Agreement in its entirety, on a Research Product-by-Research Product basis, or on a Product-by-Product basis for any reason upon at least one hundred twenty (120) days prior written notice to Liquidia.

15.3 Termination for Breach. Each Party shall have the right to terminate this Agreement in its entirety, on a Research Product-by-Research Product basis, or on a Product-by-Product basis immediately upon written notice to the other Party if the other Party materially breaches its obligations under this Agreement and, after receiving written notice identifying such material breach in reasonable detail, fails to cure such material breach within ninety (90) days from the date of such notice (or within thirty (30) days from the date of such notice in the event such material breach is solely based on the breaching Party's failure to pay any amounts due hereunder). For clarity, a material breach in connection with the Liquidia Respiratory Product or an Inhaled Product, respectively, will not be considered a material breach in connection with an Inhaled Product or the Liquidia Respiratory Product, respectively, and further, a material breach under the Vaccine Collaboration Agreement or this Agreement, respectively, will not affect or be deemed to be a material breach of this Agreement or the Vaccine Collaboration Agreement, respectively. For clarity, failure of the Parties to achieve the objectives and goals of the Inhaled Plan due primarily to technical or scientific infeasibility, for example, with respect to creating the PRINT Materials or Research Materials contemplated under the Inhaled Plan will not be deemed to be a material breach of the Agreement by either Party under this Section 15.3; provided, that such exclusion from breach does not include failure of either Party to diligently perform their obligations as described in this Agreement and under the Inhaled Plan.

15.4 Termination for Bankruptcy. Each Party shall have the right to terminate this Agreement in its entirety immediately upon written notice to the other Party upon such other Party's filing or institution of bankruptcy, reorganization, liquidation or receivership proceedings, or upon an assignment of a substantial portion of the assets for the benefit of creditors by such other Party; provided however that in the case of involuntary bankruptcy proceeding such right to terminate shall only become effective if such other Party consents to the involuntary bankruptcy or such proceeding is not dismissed within sixty (60) days after its filing. In connection therewith, all rights and licenses granted under or pursuant to any section of this

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Agreement are and shall otherwise be deemed to be for purposes of Section 365(n) of Title 11, United States Code (the **"Bankruptcy Code"**) licenses of rights to "intellectual property" as defined in Section 101(56) of the Bankruptcy Code. The Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. Upon the bankruptcy of any Party, the non-bankrupt Party shall further be entitled to a complete duplicate of, or complete access to, any such intellectual property, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement.

15.5 Effects of Termination. Upon any termination or expiration of this Agreement, each Party shall have the right to practice and/or license its interest in the Joint Inhaled Collaboration Know-How as joint owner, without any requirement of gaining the consent of, or accounting to, the other Party.

(a) The following consequences shall apply only in the event of termination by GSK pursuant to Section 15.2 or by Liquidia pursuant to Section 15.3 or expiration of this Agreement pursuant to Section 15.1(a)(i) or 15.1(b)(i), as applicable:

(i) Liquidia Respiratory Product. The following shall apply with respect to termination by GSK pursuant to Section 15.2 or by Liquidia pursuant to Section 15.3, in either case, in connection with termination of the Agreement solely with respect to the Liquidia Respiratory Product or the Agreement in its entirety. If GSK has exercised the Liquidia Respiratory Option prior to such termination, then GSK's Liquidia Respiratory License shall terminate and the following shall apply:

(A) License. GSK hereby grants to Liquidia, effective only upon such termination and subject to any terms of Third Party agreements, an exclusive, worldwide, sublicenseable (through multiple tiers) license under the GSK Respiratory Technology to make, have made, use, import, offer for sale and sell the Liquidia Respiratory Product. For the purpose of this Section 15.5(a)(i), "**GSK Respiratory Technology**" means Know-How Controlled by GSK that is solely related to the Liquidia Respiratory Product and used by or on behalf of GSK in connection with GSK's development or commercialization of the Liquidia Respiratory Product as of the effective date of termination, and Patents claiming such Know-How including any Know-How or Patents Controlled by GSK that claim or cover any technology including devices or delivery technologies. In addition, the license granted by GSK to Liquidia under PRINT Improvements under Section 5.5(b) shall continue and shall be expanded to include uses in the Liquidia Respiratory Field.

(B) Royalties. Liquidia shall pay to GSK royalty payments (the **"Reversion Royalties"**) on net sales of the Liquidia Respiratory Product in the Territory at a royalty rate of [***] percent ([***]%) for each development stage (set forth in the table below) that GSK has advanced the Liquidia Respiratory Product from the time of the exercise of the Liquidia Respiratory Option to the effective date of termination. By way of example, if GSK exercises the Liquidia Respiratory Option before the first dosing of the Liquidia Respiratory Product in the first Phase I Clinical Trial, and this Agreement is terminated after the first dosing of the Liquidia Respiratory Product in the first Phase II Clinical Trial but prior to first dosing of the Liquidia Respiratory Product in the first Phase III Clinical Trial, then GSK has advanced the

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Liquidia Respiratory Product by two (2) stages and the royalty rate shall be [***] percent ([***]%).

Development stage of Liquidia Respiratory Product

First dosing in the first Phase I Clinical Trial but prior to first dosing in the first Phase II Clinical Trial

First dosing in the first Phase II Clinical Trial but prior to first dosing in the first Phase III Clinical Trial

First dosing in the first Phase III Clinical Trial but prior to first MAA approval in any of the Major EU Markets, United States or Japan with a product label acceptable to Liquidia in its sole discretion

First MAA approval in any of the Major EU Markets, United States or Japan with a product label acceptable to Liquidia in its sole discretion

The Reversion Royalties due to GSK as set forth above with respect to the Liquidia Respiratory Product shall be paid on a country-by-country basis, commencing upon the First Commercial Sale of the Liquidia Respiratory Product in a particular country and expiring upon the date that is ten years after the First Commercial Sale of the Liquidia Respiratory Product in such country. The terms of Sections 10.5(d), 10.7, 10.8, 10.9, 10.10 and 10.11 shall apply *mutatis mutandis* to the payment of such Reversion Royalties to GSK.

(C) Regulatory Materials; Data. To the extent legally permissible, GSK shall transfer and assign to Liquidia, at no cost to Liquidia, all Regulatory Materials and Regulatory Approvals for the Liquidia Respiratory Product, as well as all data from non-clinical and clinical studies conducted by or on behalf of GSK, its Affiliates or sublicensees on the Liquidia Respiratory Product and all pharmacovigilance data (including all adverse event database) on the Liquidia Respiratory Product.

(D) Trademarks. GSK shall transfer and assign to Liquidia, at GSK's expense, all Product Marks for the Liquidia Respiratory Product (excluding any such marks that include, in whole or part, any corporate name or logos of GSK or its Affiliates or sublicensees or any other mark or trade dress that is generally used for or is substantially similar to other products in GSK's portfolio).

(E) Transition Assistance. Upon Liquidia's request, and to the extent permissible, GSK shall assign to Liquidia any sublicenses for the Liquidia Respiratory Product and any agreements or arrangement with Third Party vendors pertaining to the development or manufacture of the Liquidia Respiratory Product, and shall provide reasonable technical assistance in transferring the GSK Respiratory Technology to Liquidia or its designee at costs to be shared equally by GSK and Liquidia.

(F) Clinical Trials. If at the time of such termination, GSK is

conducting any clinical trials for the Liquidia Respiratory Product, then, at Liquidia's election on a trial-by-trial basis, and in accordance with applicable Laws and GSK's policies applicable to the conduct or stoppage of clinical trials: (A) GSK shall fully cooperate with Liquidia to transfer the conduct of all such clinical trials to Liquidia and Liquidia shall assume any and all liability (including costs) for such clinical trials after the effective date of such termination, except that GSK shall continue to bear all costs and expenses incurred in connection with the conduct of such clinical trial until the earlier of the completion of such trial or thirty (30) days after the effective date of such termination; or (B) GSK shall orderly wind down the conduct of any such clinical trial which is not assumed by Liquidia under clause (A). In each case GSK shall reimburse Liquidia for any non-cancellable and non-refundable out-of-pocket costs Liquidia may incur in connection with the conduct or wind down of all such clinical trials as of the effective date of such termination.

(ii) Inhaled Products. The following shall apply with respect to termination by GSK pursuant to Section 15.2 or by Liquidia pursuant to Section 15.3, in either case, in connection with termination of the Agreement solely on an Inhaled Product-by-Inhaled Product (or Research Product-by-Research Product, as applicable) basis or the Agreement in its entirety. If GSK has exercised the Inhaled Option prior to such termination, then GSK's Inhaled License shall expire with respect to the terminated Inhaled Product (or Research Product, if applicable) and the following shall apply:

(A) Upon Liquidia's request, GSK shall provide Liquidia with copies of Regulatory Materials, pharmacovigilance data and Joint Inhaled Collaboration Know-How not already in Liquidia's possession, related to the PRINT Materials used in connection with the Inhaled Products (or Research Products, as applicable). All such Regulatory Materials, Joint Inhaled Collaboration Know-How and other data may be redacted by GSK with respect to anything contained therein that is related to the GSK Materials. Liquidia shall have the non-exclusive right to use and reference such Regulatory Materials, Know-How and other data. Nothing herein shall be construed as requiring GSK to provide to Liquidia, or grant any rights to Liquidia, to any materials, Know-How, data, information or the like of any kind whatsoever relating to GSK Materials or delivery technologies.

(B) In addition, solely in the case of termination of the Agreement in its entirety, the license granted by GSK to Liquidia under PRINT Improvements under Section 5.5(b) shall continue and shall be expanded to include the Inhaled Field.

(iii) Joint Inhaled Collaboration Patents; Confidential Information. The following shall apply with respect to either (A) termination of the Agreement in its entirety by GSK pursuant to Section 15.2, (B) termination of the Agreement in its entirety by Liquidia pursuant to Section 15.3, or (C) expiration in both the Liquidia Respiratory Field and Inhaled Field pursuant to Sections 15.1(a)(i) and 15.1(b)(i) respectively, and either (X) termination of the Vaccine Collaboration Agreement in its entirety by GSK pursuant to Section 15.2 of the Vaccine Collaboration Agreement, (Y) termination of the Vaccine Collaboration Agreement in its entirety by Liquidia pursuant to Section 15.3 of the Vaccine Collaboration Agreement, or (Z) expiration in the Co-Delivery Vaccine Field pursuant to Section 15.1(a)(i) of the Vaccine Collaboration Agreement: Liquidia shall have the right, but not the obligation, to assume the responsibility for the prosecution and maintenance of Joint Inhaled Collaboration Patents, at Liquidia's cost and

expense. GSK shall provide Liquidia with all assistance and cooperation as reasonably necessary for Liquidia to assume such responsibility, at Liquidia's expense. Thereafter, Liquidia shall provide GSK, for its review and comment, with drafts of any material filings or responses to be made to any patent authority with respect to Joint Inhaled Collaboration Patents at least ten (10) Business Days in advance of intended submission, and shall provide GSK with copies of material filings made with, and communication received from, patent authorities with respect to Joint Inhaled Collaboration Patents. Liquidia shall reasonably consider incorporating GSK's comments thereto. For the avoidance of doubt, each Party shall have the right to practice and/or license the Joint Inhaled Collaboration Know-How as joint owner, without any requirement of gaining the consent of, or accounting to, the other Party and may use it for any purpose. In addition, GSK shall return to Liquidia, and cease using, all Confidential Information of Liquidia.

(b) The following consequences shall apply only in the event of termination by GSK pursuant to Section 15.3:

(i) Termination During Inhaled Collaboration Term. If GSK terminates the Agreement pursuant to Section 15.3 during the Inhaled Collaboration Term, then:

(A) GSK shall retain (1) the license granted in Section 5.1, (2) the right to exercise the Liquidia Respiratory Option, to the extent not exercised as of the date of termination, and the Inhaled Option, pursuant to the terms of this Agreement except that (a) if Liquidia's breach caused a Development Delay, then the period of time during which GSK shall be entitled to exercise the Inhaled Option shall be extended by twelve (12) months, and (b) the option fee payable by GSK pursuant to Section 10.3(b) will be reduced by [***] percent ([***]%), and (3) to the extent that the Liquidia Respiratory Option has been exercised, the Liquidia Respiratory License granted prior to termination of the Agreement shall survive.

(B) Liquidia shall return to GSK, and cease using all Confidential Information of GSK except as required to continue its obligations set forth in this Section 15.5(b)(i).

(C) The JPC and Advisory Council shall continue on the terms provided in this Agreement.

(D) The following payment provisions will apply: GSK shall make milestone payments to Liquidia under Section 10.4(a) at [***] percent ([***]%) of the amounts set forth therein, when and if they become due, and shall pay Liquidia royalties in accordance with Section 10.5.

(E) Liquidia's right to convert the Inhaled License to non-exclusive in the event of a Development Delay shall terminate and be of no further force and effect.

(F) Sections 9.1(a), 9.1(b) and 9.2(a) shall continue to govern the manufacture and supply of PRINT Materials, Research Materials, Liquidia Respiratory Product, Research Products and/or Inhaled Products as set forth therein, including the technology transfer of PRINT and/or PRINT Tooling.

(G) The obligations and limitations applicable to Liquidia set forth in Sections 7.1, 11.4(b) and 4.3 shall survive.

(H) GSK's obligation to use Commercially Reasonable Efforts under Sections 6.2 (as amended by this Section 15.5(b)(i)) and 8.1 shall survive only upon the occurrence of a material breach by Liquidia that is not by its nature curable and is not the result of Liquidia's purposeful or willful acts or omissions. For clarity, GSK's obligation to use Commercially Reasonable Efforts under Sections 6.2 (as amended by this Section 15.5(b)(i)) and 8.1 shall not survive upon the occurrence of a material breach by Liquidia that either (1) is by its nature curable, whether

or not the result of Liquidia's purposeful or willful acts or omissions, but that Liquidia does not cure in accordance with Section 15.3, or (2) is not curable, and is the result of Liquidia's purposeful or willful acts or omissions.

(ii) Termination After Exercise of Inhaled Option. If GSK terminates the Agreement pursuant to Section 15.3 after GSK's exercise of the Inhaled Option, then:

(A) GSK shall retain the Inhaled License as provided in this Agreement, subject to the remainder of this Section 15.5(b)(ii).

(B) Liquidia shall return to GSK, and cease using all Confidential Information of GSK except as required to continue its obligations set forth in this Section 15.5(b)(ii).

(C) At GSK's option, the JPC and Advisory Council will continue as provided in this Agreement.

(D) The following payment provisions will apply: GSK shall make milestone payments to Liquidia under Section 10.4(a) at [***] percent ([***]%) of the amounts set forth therein, when and if they become due, and shall pay Liquidia royalties in accordance with Section 10.5.

(E) Liquidia's right to convert the Inhaled License to non-exclusive in the event of a Development Delay shall terminate and be of no further force and effect.

(F) Sections 9.1(b) and 9.2(a) shall continue to govern the manufacture and supply of PRINT Materials, Liquidia Respiratory Product, Research Products and/or Inhaled Products as set forth therein, including the technology transfer of PRINT and/or PRINT Tooling.

(G) The obligations and limitations applicable to Liquidia set forth in Section 7.1 shall survive.

(H) GSK's obligation to use Commercially Reasonable Efforts under Sections 6.2 (as amended by this Section 15.5(b)(i)) and 8.1 shall survive only upon the occurrence of a material breach by Liquidia that is not by its nature curable and is not the result

of Liquidia's purposeful or willful acts or omissions. For clarity, GSK's obligation to use Commercially Reasonable Efforts under Sections 6.2 (as amended by this Section 15.5(b)(i)) and 8.1 shall not survive upon the occurrence of a material breach by Liquidia that either (1) is by its nature curable, whether or not the result of Liquidia's purposeful or willful acts or omissions, but that Liquidia does not cure in accordance with Section 15.3, or (2) is not curable, and is the result of Liquidia's purposeful or willful acts or omissions.

15.6 Survival. Termination or expiration of this Agreement shall not affect any rights or obligations of the Parties under this Agreement that have accrued prior to the date of termination or expiration. Notwithstanding anything to the contrary, the following provisions shall survive any expiration or termination of this Agreement: Sections 5.3, 5.6, 5.5(b), 7.5 (solely with respect to Product sold under this Agreement prior to the effective date of termination), 10.2 — 10.11 (solely with respect to payments accrued prior to the effective date of termination, and if the Agreement is terminated by GSK pursuant to Section 15.3, payments due to Liquidia after the termination as amended by Section 15.5(b) if applicable), 11.1, 11.3, 11.5(b) (in the event of expiration of the Agreement only), 15.5 (as applicable), and 15.6, and Articles 1, 13, 14, 16, and 17. In addition, Sections 7.2, 7.3, 7.4, 7.5, and 15.3 and 15.5(a) shall survive any termination of this Agreement with respect to any obligations under this Agreement that survive such termination.

ARTICLE 16
DISPUTE RESOLUTION

16.1 Disputes. The Parties recognize that disputes as to certain matters may from time to time arise that relate to either Party's rights and/or obligations hereunder. It is the objective of the Parties to establish procedures to facilitate the resolution of disputes arising under this Agreement in an expedient manner by mutual cooperation. To accomplish this objective, the Parties agree to follow the procedures set forth in this Article 16 to resolve any controversy or claim arising out of, relating to or in connection with any provision of this Agreement, if and when a dispute arises under this Agreement.

16.2 Internal Resolution. With respect to all disputes arising between the Parties under this Agreement, including any alleged breach under this Agreement or any issue relating to the interpretation or application of this Agreement, if the Parties are unable to resolve such dispute within thirty (30) days after such dispute is first identified by either Party in writing to the other, the Parties shall refer such dispute to the Executive Officers of the Parties for attempted resolution by good faith negotiations within thirty (30) days after such notice is received by or referred to the Executive Officers.

16.3 Third Party Mediation. Any dispute remaining unresolved after escalation to the Executive Officers pursuant to Section 16.2 shall first be submitted to mediation in accordance with the Mediation Procedure of the International Institute for Conflict Prevention and Resolution ("**CPR**"). Such mediation shall be attended on behalf of each Party for at least one session by a senior executive with authority to resolve the dispute and shall be held in New York City, New York. Unless otherwise agreed by the Parties, the Parties shall select a mediator from the CPR Panels of Distinguished Neutrals. Notwithstanding the foregoing, each Party has the right to pursue provisional relief from any court, such as attachment, preliminary injunction

or replevin to avoid irreparable harm, maintain the status quo, or preserve the subject matter of the dispute, prior to the commencement of, or while the Parties are engaged in, the mediation process pursuant to Section 16.5. Any dispute that cannot be resolved by mediation within sixty (60) days of notice by one Party to the other Party of the commencement of the mediation process shall be resolved by arbitration in accordance Section 16.4.

16.4 Dispute Resolution. If the Parties are not able to resolve a dispute referred to them under Section 16.2 and subject to mediation as set forth in Section 16.3, then subject to Section 16.5, such dispute shall be finally resolved by final and binding arbitration conducted in accordance with the terms of this Section 16.4. The arbitration will be held in New York City, New York according to Rules of Arbitration of the International Chamber of Commerce ("**ICC**"). The arbitration will be conducted by a single arbitrator with significant experience in the pharmaceutical industry, unless otherwise agreed by the Parties, appointed by ICC within fifteen (15) days after commencement of the arbitration in accordance with applicable ICC rules. Any arbitration herewith will be conducted in the English language. The arbitrator will be instructed not to award any punitive or special damages and will render a written decision no later than six (6) months following the selection of the arbitrator, including a basis for any damages awarded and a statement of how the damages were calculated. Any award will be promptly paid in Dollars free of any tax, deduction or offset. Each Party agrees to abide by the award rendered in any arbitration conducted pursuant to this Section 16.4. With respect to money damages, nothing contained herein will be construed to permit the arbitrator or any court or any other forum to award punitive or exemplary damages. Each Party will pay its legal fees and costs related to the arbitration (including witness and expert fees); provided, that the arbitrator shall be authorized to determine whether a Party is the prevailing Party, and if so, to award to that prevailing Party reimbursement for its reasonable attorneys' fees, costs and disbursements. All proceedings and decisions of the arbitrator shall be deemed Confidential Information of each of the Parties, and shall be subject to Article 14. From the date of submission of the dispute to the Executive Officers in Section 16.2, until such time as the dispute has become finally settled, the running of the time periods as to which a Party alleged to have breached the Agreement must cure such breach becomes suspended as to any breach that is the subject matter of the dispute. Judgment on the award so rendered will be final and may be entered in any court having jurisdiction thereof.

16.5 Equitable Relief. Nothing in this Article 16 will preclude either Party from seeking equitable relief or interim or provisional relief from a court of competent jurisdiction, including a temporary restraining order, preliminary injunction or other interim equitable relief, concerning a dispute prior to any arbitration if necessary to protect the interests of such Party or to preserve the status quo pending the arbitration proceeding.

16.6 Excluded Matters. Notwithstanding Sections 16.2 through 16.4, any dispute, controversy or claim relating to the scope, validity, enforceability or infringement of any Patent shall be submitted to a court of competent jurisdiction.

ARTICLE 17
MISCELLANEOUS

17.1 Entire Agreement; Amendment. This Agreement, the Vaccine Collaboration Agreement, and the Exhibits and Schedules hereto, sets forth the complete, final and exclusive agreement and all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties hereto with respect to the subject matter hereof and supersedes, as of the Effective Date, all prior and contemporaneous agreements and understandings between the Parties with respect to the subject matter hereof, including the Confidentiality Agreement. No subsequent alteration, amendment, change or addition to this Agreement shall be binding upon the Parties unless reduced to writing and signed by an authorized officer of each Party.

17.2 Force Majeure. Both Parties shall be excused from the performance of their obligations under this Agreement to the extent that such performance is prevented by force majeure and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse shall be continued so long as the condition constituting force majeure continues and the nonperforming Party takes reasonable efforts to remove the condition. For purposes of this Agreement, force majeure shall include conditions beyond the control of the Parties, including an act of God, war, terrorist act, labor strike or lock-out, epidemic, and fire, earthquake, storm or like catastrophe. If a force majeure persists for more than ninety (90) days, then the Parties will discuss in good faith the modification of the Parties' obligations under this Agreement in order to mitigate the delays caused by such force majeure.

17.3 Notices. Any notice required or permitted to be given under this Agreement shall be in writing, shall specifically refer to this Agreement, and shall be addressed to the appropriate Party at the address specified below or such other address as may be specified by such Party in writing in accordance with this Section 17.3, and shall be deemed to have been given for all purposes (a) when received, if hand-delivered or sent by confirmed facsimile or a reputable courier service, or (b) five (5) Business Days after mailing, if mailed by first class certified or registered airmail, postage prepaid, return receipt requested.

If to Liquidia: If by courier to:

Liquidia Technologies, Inc.
419 Davis Dr. Suite 100
Morrisville, NC 27560
Attn: Legal
Fax: [***]

If by mail to:

Liquidia Technologies, Inc.
P.O. Box 110085
Research Triangle Park, NC 27709
Attn: Legal
Fax: [***]

With a copy to (which shall not constitute notice):

Cooley LLP
One Freedom Square
Reston Town Center
11951 Freedom Drive
Reston, VA 20190-5656
Attn: Kenneth J. Krisko
Fax: [***]

If to GSK: GlaxoSmithKline
709 Swedeland Road
King of Prussia, PA, 19406
Attention: Business Development
Facsimile: [***]

With a copy to (which shall not constitute notice):

GlaxoSmithKline
2301 Renaissance Boulevard
Mailcode RN0220
King of Prussia, PA 19406-2772
Attention: Vice President and Associate General Counsel, Business Development Transactions
Telephone: [***]
Facsimile: [***]

17.4 No Strict Construction; Headings. This Agreement has been prepared jointly by the Parties and shall not be strictly construed against either Party. Ambiguities, if any, in this Agreement shall not be construed against any Party, irrespective of which Party may be deemed to have authored the ambiguous provision. The headings of each Article and Section in this Agreement have been inserted for convenience of reference only and are not intended to limit or expand on the meaning of the language contained in the particular Article or Section.

17.5 Assignment.

(a) Subject to Section 17.5(c) below, neither Party may assign or transfer this Agreement or any rights or obligations hereunder without the prior written consent of the other (not to be unreasonably withheld or delayed), except that a Party may make such an assignment without the other Party's consent to (i) an Affiliate (for so long as such entity remains an Affiliate) or (ii) a Third Party in connection with a Change of Control of such Party (such Third Party, an **"Acquiror"**). Any successor or assignee of rights or obligations permitted hereunder shall, in writing to the other Party, expressly assume performance of such rights or obligations. Any permitted assignment shall be binding on the successors of the assigning Party. Any assignment or attempted assignment by either Party in violation of the terms of this Section 17.5 shall be null, void and of no legal effect.

(b) In the event that a Party undergoes a Change of Control, all intellectual property rights owned or otherwise controlled by the Acquiror or its Affiliates at any time (excluding the Party hereto that becomes an Affiliate of the Acquiror as a result of such transaction) shall be excluded from the licenses granted under this Agreement (including any such intellectual property owned or otherwise controlled by such Acquiror as of the date of consummation of such transaction but not acquired as a result of the transaction), except for any intellectual property rights generated or owned by the Acquiror or its Affiliates pursuant to the term of this Agreement in performing any activity under this Agreement.

(c) GSK acknowledges that Liquidia may sell, to one or more Third Parties, Liquidia's rights to receive milestone payments and/or royalties under this Agreement to an entity whose principal purpose is to provide financing to Liquidia (the **"Royalty Purchaser"**). Upon the sale to a Royalty Purchaser described in the foregoing sentence, Liquidia shall notify GSK in writing and at Liquidia's direction, GSK shall deliver directly to the Royalty Purchaser instead of to Liquidia those payments contemplated by the Agreement. For clarity, GSK shall continue to deal directly with Liquidia in all other respects concerning such payments, including reporting obligations and audit rights as provided under the Agreement and GSK shall not be required to provide any other information, including its Confidential Information, to such Royalty Purchaser. Payments to a Royalty Purchaser shall constitute a full discharge of GSK's obligations in respect of such payment. For clarity, nothing herein shall obligate GSK to pay more than the amounts that are required under this Agreement absent such sale to a Royalty Purchaser. Liquidia shall indemnify and hold harmless the GSK Indemnitees

from and against any and all Claims arising out of any and all claims by a Royalty Purchaser with respect to or resulting from any sale as described under this Section 17.5(c), except where such Claims are due to GSK's failure to perform its obligations under the Agreement.

17.6 Performance by Affiliates. Each Party may discharge any obligations and exercise any right hereunder through any of its Affiliates. Each Party hereby guarantees the performance by its Affiliates of such Party's obligations under this Agreement, and shall cause its Affiliates to comply with the provisions of this Agreement in connection with such performance. Any breach by a Party's Affiliate of any of such Party's obligations under this Agreement shall be deemed a breach by such Party, and the other Party may proceed directly against such Party without any obligation to first proceed against such Party's Affiliate.

17.7 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

17.8 Severability. If any one or more of the provisions of this Agreement is held to be invalid or unenforceable by any court of competent jurisdiction from which no appeal can be or is taken, the provision shall be considered severed from this Agreement and shall not serve to invalidate any remaining provisions hereof. The Parties shall make a good faith effort to replace any invalid or unenforceable provision with a valid and enforceable one such that the objectives contemplated by the Parties when entering this Agreement may be realized.

17.9 No Waiver. Any delay in enforcing a Party's rights under this Agreement or any waiver as to a particular default or other matter shall not constitute a waiver of such Party's

rights to the future enforcement of its rights under this Agreement, except with respect to an express written and signed waiver relating to a particular matter for a particular period of time.

17.10 Independent Contractors. Each Party shall act solely as an independent contractor, and nothing in this Agreement shall be construed to give either Party the power or authority to act for, bind, or commit the other Party in any way. Nothing herein shall be construed to create the relationship of partners, principal and agent, or joint-venture partners between the Parties.

17.11 English Language; Governing Law. This Agreement was prepared in the English language, which language shall govern the interpretation of, and any dispute regarding, the terms of this Agreement. This Agreement and all disputes arising out of or related to this Agreement or any breach hereof shall be governed by and construed under the laws of the State of Delaware, without giving effect to any choice of law principles that would require the application of the laws of a different state.

17.12 Counterparts. This Agreement may be executed in one (1) or more counterparts, by original, facsimile or PDF signature, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

{Signature page follows}

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized officers as of the Effective Date.

GLAXO GROUP LIMITED		**LIQUIDIA TECHNOLOGIES, INC.**	
By:	/s/ Vaughn Walton	By:	/s/ Neal F. Fowler
Name:	Vaughn Walton	Name:	Neal F. Fowler
Title:	Authorised Signatory	Title:	CEO

LIST OF EXHIBITS:

EXHIBIT A
LIQUIDIA PATENTS

Application No.	Patent No.	A&B Ref. No.	UNC ROIs	LT Ref. No.	Country	Status	Date Issued	Date Filed	Title
2004276302	2004276302	035052/ 338794	04-0013	5001	Australia	Issued	5/19/2011	9/23/2004	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
08100301.6	1106262	035052/ 339054	04-0013	5001	Hong Kong	Issued	12/30/2011	9/23/2004	Photocurable Perfluoropolyethers for Use as Novel Materials In Microfluidic Devices
200601857-6	120640	035052/ 338805	04-0013	5001	Singapore	Issued	10/31/2008	9/23/2004	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
2,540,035		035052/ 338795	04-0013	5001	Canada	Pending		9/23/2004	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
2006-527164	4586021	035052/ 338801	04-0013	5001	Japan	Issued	9/10/2010	3/20/2006	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
PA/a/2006/003201		035052/ 338803	04-0013	5001	Mexico	Pending		3/22/2006	Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
04784924.5	1694731	035052/ 338798	04-0013	5001	Europe	Issued	3/28/2012	4/21/2006	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
2212/DELNP/2006		035052/ 338800	04-0013	5001	India	Pending		4/24/2006	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
200480034620.1	ZL 200480034620.1	035052/ 338796	04-0013	5001	China	Issued	7/20/2011	5/23/2006	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
10/572,764		035052/ 338792	04-0013	5001	United States	Notice of Allow		5/16/2007	Photocurable Perfluoropolyethers for Use as Novel

									Materials in Microfluidic Devices
11/825,482		035052/ 338793	04-0013	5001/01	United States	Pending		7/6/2007	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
T emp04-0013USCON		035052/ 410601	04-0013	5001/02	United States	New App			Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices
12/063,284	8,158,728	035052/ 339941	04-0067	5003/01	United States	Issued	4/17/2012	5/29/2009	Methods and Materials for Fabricating Microfluidic Devices
13/438,431		035052/ 417580	04-0067	5003/02	United States	Pending		4/3/2012	Methods and Materials for Fabricating Microfluidic Devices
06801056.0		035052/ 339740	04-0067	5003/01	Europe	Pending			Methods and Materials for Fabricating Microfluidic Devices
200603890.5	123152	035052/ 338898	04-0104	5002	Singapore	Issued		6/7/2006	Methods for Fabricating Isolated Micro-and Nano-Structures Using Soft or Imprint Lithography
176,254		035052/ 338892	04-0104	5002	Israel	Pending		6/12/2006	Methods for Fabricating Isolated Micro-and Nano-Structures Using Soft or Imprint Lithography
2006/04885		035052/ 338900	04-0104	5002	South Africa	Pending		6/13/2006	Methods for Fabricating Isolated Micro-and Nano-Structures Using Soft or Imprint

Application No.	Patent No.	A&B Ref. No.	UNC ROIs	LT Ref. No.	Country	Status	Date Issued	Date Filed	Title
									Lithography
2004318602	2004318602	035052/ 338850	04-0104	5002	Australia	Issued	3/25/2010	6/14/2006	Methods for Fabricating Isolated Micro-and Nano-Structures Using Soft or Imprint Lithography
PA/a/2006/006738	266246	035052/ 338896	04-0104	5002	Mexico	Issued	4/23/2009	6/14/2006	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
2,549,341		035052/ 338852	04-0104	5002	Canada	Pending		6/14/2006	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
2006-545541		035052/ 338895	04-0104	5002	Japan	Pending		6/16/2006	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
2006282042		035052/ 339168	04-0104	5002	Australia	Pending		6/19/2006	Nanoparticle Fabrication Methods, Systems, and Materials
417848-3		035052/ 338851	04-0104	5002	Brazil	Pending		6/19/2006	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
10-2006-7012179		035052/ 338894	04-0104	5002	Korea, Republic of	Pending		6/19/2006	Methods for Fabricating Isolated Micro-and-Nano-Structures Using Soft or Imprint Lithography
04821787.1		035052/ 338889	04-0104	5002	Europe	Pending		7/5/2006	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
3991/DELNP/2006		035052/ 338893	04-0104	5002	India	Pending		7/11/2006	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
200480041942.9	ZL 200480041942.9	035052/ 338853	04-0104	5002	China	Issued	7/22/2009	8/21/2006	Methods for Fabricating Isolated Micro-and Nano-Structures Using Soft or Imprint Lithography
11/594,023		035052/ 339497	04-0104	5022	United States	Pending		11/7/2006	Isolated and Fixed Micro and Nano Structures and Methods Thereof
10/583,570		035052/ 338899	04-0104	5002	United States	Pending		3/5/2007	Methods for Fabricating Isolated Micro- And Nano- Structures Using Soft or Imprint Lithography
07103263.7		035052/ 338890	04-0104	5002	Hong Kong	Pending		3/27/2007	Methods for Fabricating Isolated Micro-and Nano-Structures Using Soft or Imprint Lithography
11/825,469		035052/ 339501	04-0104	5002/01	United States	Pending		7/6/2007	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
9431/DELNP/2007		035052/ 339173	04-0104	5020	India	Pending		12/6/2007	Nanoparticle Fabrication Methods, Systems, and Materials
2,611,985		035052/	04-0104	5020	Canada	Pending		12/12/2007	Nanoparticle Fabrication Methods, Systems, and

Application No.	Patent No.	A&B Ref. No.	UNC ROIs	LT Ref. No.	Country	Status	Date Issued	Date Filed	Title
		339170							Materials
0611827-5	PI0611827.5	035052/ 339169	04-0104	5020	Brazil	Issued		12/17/2007	Nanoparticle Fabrication Methods, Systems, and Materials
06824764.2		035052/ 339172	04-0104	5020	Europe	Pending		1/17/2008	Nanoparticle Fabrication Methods, Systems, and Materials
200680029884.7		035052/ 339171	04-0104	5020	China	Pending		2/15/2008	Nanoparticle Fabrication Methods, Systems, and Materials
2008-517202		035052/ 339175	04-0104	5020	Japan	Pending		2/15/2008	Nanoparticle Fabrication Methods, Systems, and Materials
06849872.4		035052/ 343596	04-0104	5022	Europe	Pending		6/3/2008	Isolated and Fixed Micro and Nano Structures and Methods Thereof
12/374,182		035052/ 367428	04-0104	5033	United States	Pending		10/15/2009	Nanoparticle Fabrication Methods, Systems, and Materials for Fabricating Artificial Red Blood Cells
11/921,614		035052/ 339178	04-0104	5020	United States	Pending		7/28/2010	Nanoparticle Fabrication Methods, Systems, and Materials
2011-104856		035052/ 405505	04-0104	5002	Japan	Pending		5/10/2011	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
10-2011-7020441		035052/ 408972	04-0104	5002	Korea, Republic of	Pending		9/1/2011	Methods for Fabricating Isolated Micro- and Nano- Structures Using Soft or Imprint Lithography
MX/a/2007/016039	295862	035052/ 339176	04-0104	5020	Mexico	Issued	3/9/2012		Nanoparticle Fabrication Methods, Systems, and Materials
Temp04- G104KRCONT			04-0104		Korea, Republic of	New App			
11/879,746	US 2008-0181958		04-0104	5030	United States	Pending		6/17/2006	Nanoparticle Fabrication Methods, Systems, and Materials
12/444,662		035052/ 370388	07-0028	5010	United States	Pending		3/11/2010	Nanoparticle Compositions for Controlled Delivery of Nucleic Acids
US 11/633,763	US 8,128,393	n/a	n/a	5013	US	Issued	March 6, 2012	Dec. 4, 2006	Methods And Materials For Fabricating Laminate Nanomolds And Nanoparticles Therefrom
07874162.6	2117725	n/a	n/a	5013	EP	Pending		Dec. 4, 2006	Methods And Materials For Fabricating Laminate Nanomolds And Nanoparticles Therefrom
200780050904.3	101668594	n/a	n/a	5013	CN	Pending		Dec. 4, 2006	Methods And Materials For Fabricating Laminate Nanomolds And Nanoparticles Therefrom
2009-540277	2010-511544	n/a	n/a	5013	JP	Pending		Dec. 4, 2006	Methods And Materials For Fabricating Laminate Nanomolds And Nanoparticles Therefrom
10-2009-7013846	2009-0096493	n/a	n/a	5013	KR	Pending		Dec. 4, 2006	Methods And Materials For Fabricating Laminate Nanomolds And Nanoparticles

Application No.	Patent No.	A&B Ref. No.	UNC ROIs	LT Ref. No.	Country	Status	Date Issued	Date Filed	Title
									Therefrom
US 13/354,046 (DivOl off 5013US)		n/a	n/a	5013/01	US	Pending		Dec. 4, 2006	Methods And Materials For Fabricating Laminate Nanomolds And Nanoparticles Therefrom
US 12/087,374	US 2009-0250588	n/a	n/a	5015	US	Pending		Jan. 4, 2006	Nanostructured Surfaces For Biomedical/Biomaterial Applications And Processes Thereof
US 12/439,281	US 2010-0055459	n/a	n/a	5035	US	Pending		Aug 30, 2006	Nanoparticles Having Functional Additives For Self And Directed Assembly And Methods Of Fabricating Same
US 12/250,461	US 7,976,759	n/a	n/a	5037	US	Issued	July 12, 2011	Oct 12, 2007	System And Method For Producing Particles And Patterned Films
08838460.7	2207670	n/a	n/a	5037	EP	Pending		Oct 12,2007	System And Method For Producing Particles And Patterned Films
200880120295.9	101896337	n/a	n/a	5037	CN	Pending		Oct 12, 2007	System And Method For Producing Particles And Patterned Films
2648/CHENP/2010	2648/CHENP/2 010 A	n/a	n/a	5037	IN	Pending		Oct 12, 2007	System And Method For Producing Particles And Patterned Films
2010-529144	2011-501703	n/a	n/a	5037	JP	Pending		Oct 12, 2007	System And Method For Producing Particles And Patterned Films
11100331.5									
US 13/156,147									
US 12/630,569									
PI0923282-6									
200980156363.1									
09831124.4									
4696/CHENP/2011									
10-2011-7015316									
MX/a/2011/005900									
12/514,484									
12/528,571		035052/ 377412	07-0074	5028	United States	Pending		8/25/2009	Discrete Size and Shape Specific Pharmaceutical Organic Nanoparticles
13/000,244		035052/ 398597	08-0042	5043	United States	Pending		6/24/2008	High Fidelity Through Hole Film, and Associated Method
12/989,315		035052/ 396046	08-0090	5042	United States	Pending		4/25/2008	Degradable Compounds and Methods of Use Thereof, Particularly with Particle Replication in Non-Wetting Templates
13/383,518		035052/ 414403	10-0005	5047	United States	Pending		1/11/2012	Engineered Aerosol Particles, and Associated Methods
Templ0-0005JP		035052/ 414381	10-0005	5047	Japan	New App			Engineered Aerosol Particles, and Associated Methods
10742329.5		035052/ 414380	10-0005	5047	Europe	Pending			Engineered Aerosol Particles, and Associated Methods

Application No.	Patent No.	A&B Ref. No.	UNC ROIs	LT Ref. No.	Country	Status	Date Issued	Date Filed	Title
PCT/US2011/051775		035052/ 410148	11-0035	5055	International	Pending		9/15/2011	Asymmetric Bifunctional Silyl Monomers and Particles Thereof as Prodrugs and Delivery Vehicles for Pharmaceutical, Chemical and Biological Agents
PCT/US2012/025260		035052/ 415802	11-0053	6001	International	Pending		2/15/2011	Nanoparticles with Reversible Disulfide Linkages
61/564,626		035052/ 412946	12-0023	6002	United States	Pending		11/29/2011	Geometrically Engineered Particles and Methods for Modulating Macrophage or Immune Responses

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT B

Schedule of Third Party Agreements

Bill & Melinda Gates Global Access Rights Letter Agreement, February 18, 2011, as amended.

PATH Vaccine Solutions, Research Collaboration Agreement, November 1, 2011.

Program for Appropriate Technology in Health (PATH)/(MVI), Research Collaboration Agreement, November 22, 2010.

University of North Carolina, Chapel Hill:

Amended and Restated License Agreement, December 15, 2008, as amended;

Material Transfer Agreement, August 16, 2007, as amended;

Supported Research Agreement, September 1, 2005, as amended.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT C

Inhaled Plan and Budget

[***]

[Eleven pages omitted in their entirety]

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT D

STOCK PURCHASE AGREEMENT

LIQUIDIA TECHNOLOGIES, INC.
FIRST AMENDMENT AND JOINDER TO
SERIES C-1 PREFERRED STOCK PURCHASE AGREEMENT

This FIRST AMENDMENT AND JOINDER TO SERIES C-1 PREFERRED STOCK PURCHASE AGREEMENT (the "**Amendment**") is made as of this day of June, 2012, by and among Liquidia Technologies, Inc., a Delaware corporation (the "**Company**"), and each of the persons and entities listed on Schedule A hereto (each of which is herein referred to as an "**Investor**").

WHEREAS, the Company and Bill & Melinda Gates Foundation are parties to that certain Series C-1 Preferred Stock Purchase Agreement dated as of February 18, 2011 (as executed, the "**Original Agreement**" and as amended hereby, the "**Agreement**");

WHEREAS, the Original Agreement provided for the sale by the Company of up to 6,270,064 shares of the Company's Series C-1 Preferred Stock (the "**Shares**") in one or more Subsequent Closings (as defined therein) to occur on or prior to June 18, 2011; and

WHEREAS, the Company and the other parties hereto desire to amend the Original Agreement in order to provide for the purchase by Glaxo Group Limited (which is hereby designated a "**New Investor**" pursuant to the Agreement) of Shares in a Subsequent Closing effective on the date of this Amendment.

NOW, THEREFORE, the parties hereto, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby agree as follows:

1. Defined Terms. Terms that are used herein with initial capital letters and that are not otherwise defined shall have the meanings given to them in the Original Agreement.

2. Subsequent Closing. Section 1.3 of the Original Agreement is hereby amended to read as follows:

1.3 Subsequent Closing. The subsequent closing of the purchase and sale of 4,765,248 Shares shall take place at the offices of HLG at 10:00 a.m. on or before June , 2012 (which time, date and place are referred to in this Agreement as the "Subsequent Closing" and, together with the Initial Closing, each, a "Closing"). At the Subsequent Closing, the Company shall deliver to the New Investor a certificate representing the Shares that such New Investor is purchasing against payment of the aggregate Series C-1 Purchase Price therefor by check or wire transfer. The New Investor shall become a party to, and become bound by, this Agreement, the Investors' Rights Agreement, the

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Voting Agreement and the First Refusal and Co-Sale Agreement as an "Investor" thereunder without, except as otherwise agreed with the Company, the need for an amendment to this Agreement, the Investors' Rights Agreement, the Voting Agreement and the First Refusal and Co-Sale Agreement except to add such New Investor as a signatory thereto and to add such New Investor's name to the appropriate schedule to such agreement (including supplementing Schedule A with the name and address of each New Investor, the number of Shares to be purchased by such New Investor at the Subsequent Closing and the total Series C-1 Purchase Price payable by such New Investor at the Subsequent Closing) and each New Investor shall have the rights and obligations hereunder and thereunder as an "Investor", in each case as of the date of the Subsequent Closing.

3. Section 2.2(a)(i) is hereby amended to read as follows:

(i) Preferred Stock. 43,088,173 shares of preferred stock, par value $0.001 per share (the "**Preferred Stock**"), 1,974,430 shares of which have been designated Series A Preferred Stock (the "**Series A Preferred Stock**"), all of which are issued and outstanding, 1,834,862 shares of which have been designated Series A-1 Preferred Stock (the "**Series A-1 Preferred Stock**"), all of which are issued and outstanding, 4,620,123 shares of which have been designated Series B Preferred Stock (the "**Series B Preferred Stock**"), of which 4,496,908 shares are issued and outstanding, 24,199 of which have been reserved for issuance upon exercise of that certain Warrant to Purchase Stock issued to Silicon Valley Bank (the "**SVB Warrant**") and 99,016 of which have been reserved for issuance upon exercise of that certain Wan-ant to Purchase Stock issued to Velocity Financial Group, Inc. (and together with the SVB Warrant, the "**Series B Warrants**"), 17,102,578 shares of which have been designated Series C Preferred Stock (the "**Series C Preferred Stock**"), all of which have been issued and are outstanding and 17,556,180 shares of which have been designated Series C-1 Preferred Stock (the "**Series C-1 Preferred Stock**"), all of which are reserved for issuance pursuant to this Agreement. The rights, privileges and preferences of the Series A Preferred Stock, the Series A-1 Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock and the Series C-1 Preferred Stock are as stated in the Restated Certificate and all such rights, privileges and preferences are valid, binding and enforceable in accordance with the State of Delaware General Corporation Law. Each share of Series A Preferred Stock is convertible into 1.3539 shares of Class A Common Stock, each share of Series A-1 Preferred Stock is

convertible into 1.9512 shares of Class A Common Stock, each share of Series B Preferred Stock is convertible into 2.0026 shares of Class A Common Stock, each share of Series C Preferred Stock is convertible into 1.8331 shares of Class A Common Stock, and each share of Series C-1 Preferred Stock is convertible into 1.0000 shares of Class A Common Stock.

4. Section 3.7 is hereby amended to read as follows:

3.7 Further Limitations on Disposition. Without in any way limiting the representations set forth above, such Investor further agrees not to make any disposition of all or any portion of the Securities (other than to an affiliate) unless and until:

(a) There is then in effect a registration statement under the Act covering such proposed disposition and such disposition is made in accordance with such registration statement; or

(b) (i) Such Investor shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and (ii) if reasonably requested by the Company, such Investor shall have furnished the Company with an opinion of counsel reasonably satisfactory to the Company that such disposition will not require registration of such shares under the Act. It is agreed that the Company will not require opinions of counsel for transactions made pursuant to Rule 144.

Notwithstanding the provisions of subsections (a) and (b) above, no such registration statement or opinion of counsel shall be necessary for a transfer by an Investor that is (x) a partnership to a partner of such partnership or a retired partner of such partnership who retires after the date hereof, or to the estate of any such partner or retired partner or the transfer by gift, will or intestate succession of any partner to his or her spouse or to the siblings, lineal descendants or ancestors of such partner or his or her spouse or (y) a limited liability company to a member of such limited liability company or a retired member of such limited liability company who retires after the date hereof, or to the estate of any such member ore retired member or the transfer by gift, will or intestate succession of any member to his or her spouse or to the siblings, lineal descendants or ancestors of such member or his or her spouse, if the prospective transferee agrees in all such instances

in writing to be subject to the terms hereof to the same extent as if her or she were an original Investor hereunder.

5. Condition to Subsequent Closing. Article 6 of the Original Agreement is hereby amended to add the following Section 6.8:

6.8 Collaboration Agreements. The Company and GSK shall have entered into each of the Inhaled Collaboration and Option Agreement, in the form attached hereto as Exhibit F-1.

6. Schedule A. Schedule A to the Original Agreement is hereby replaced with Schedule A attached to this Amendment.

7. No Other Amendment. Except as expressly provided for herein, the Original Agreement shall remain in full force and effect.

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IN WITNESS WHEREOF, the parties have executed this FIRST AMENDMENT AND JOINDER TO SERIES C-1 PREFERRED STOCK PURCHASE AGREEMENT as of the date first above written.

COMPANY:

Liquidia Technologies, Inc.

By: _____

Name: Neal Fowler

Title: Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this FIRST AMENDMENT AND JOINDER TO SERIES C-1 PREFERRED STOCK PURCHASE AGREEMENT as of the date first above written.

INVESTOR:

BILL & MELINDA GATES FOUNDATION

By: _____
Name:
Title:

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

IN WITNESS WHEREOF, the parties have executed this FIRST AMENDMENT AND JOINDER TO SERIES C-1 PREFERRED STOCK PURCHASE AGREEMENT as of the date first above written.

INVESTOR:

GLAXO GROUP LIMITED

By: _____
Name:
Title:

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Schedule A

Schedule of Investors

Closing Date: **February 18, 2011**
Price Per Share: **$0.886044 for the Bill & Melinda Gates Foundation**

Name and Address	Number of Shares Purchased	Total Purchase Price of Shares
Bill & Melinda Gates Foundation	11,286,115	$ 9,999,994.48
TOTAL	**11,286,115**	**$ 9,999,994.48**

Closing Date: **June ,2012**
Price Per Share: **$0.797440**

Name and Address	Number of Shares Purchased	Total Purchase Price of Shares
Glaxo Group Limited	4,765,248	$ 3,799,999.37
TOTAL	**4,765,248**	**$ 3,799,999.37**

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT E

PREVENTION OF CORRUPTION — THIRD PARTY GUIDELINES

The GSK Anti-Bribery and Corruption Policy (POL-GSK-007) requires compliance with the highest ethical standards and all anti-corruption laws applicable in the countries in which GSK (whether through a third party or otherwise) conducts business. POL-GSK-007 requires all GSK employees and any third party acting for or on behalf of GSK to ensure that all dealings with third parties, both in the private and government sectors, are carried out in compliance with all relevant laws and regulations and with the standards of integrity required for all GSK business. GSK values integrity and transparency and has zero tolerance for corrupt activities of any kind, whether committed by GSK employees, officers, or third-parties acting for or on behalf of the GSK.

Corrupt Payments — GSK employees and any third party acting for or on behalf of GSK, shall not, directly or indirectly, promise, authorise, ratify or offer to make or make any "payments" of "anything of value" (as defined in the glossary section) to any individual (or at the request of any individual) including a "government official" (as defined in the glossary section) for the improper purpose of influencing or inducing or as a reward for any act, omission or decision to secure an improper advantage or to improperly assist the company in obtaining or retaining business.

Government Officials — Although GSK's policy prohibits payments by GSK or third parties acting for or on its behalf to any individual, private or public, as a "quid pro quo" for business, due to the existence of specific anticorruption laws in the countries where we operate, this policy is particularly applicable to "payments" of "anything of value" (as defined in the glossary section), or at the request of, "government officials" (as defined in the glossary section).

Facilitating Payments — For the avoidance of doubt, facilitating payments (otherwise known as "greasing payments" and defined as payments to an individual to secure or expedite the performance of a routine government action by government officials) are no exception to the general rule and therefore prohibited.

GLOSSARY

The terms defined herein should be construed broadly to give effect to the letter and spirit of the ABAC Policy. GSK is committed to the highest ethical standards of business dealings and any acts that create the appearance of promising, offering, giving or authorizing payments prohibited by this policy will not be tolerated.

Anything of Value: this term includes cash or cash equivalents, gifts, services, employment offers, loans, travel expenses, entertainment, political contributions, charitable donations, subsidies, per diem payments, sponsorships, honoraria or provision of any other asset, even if nominal in value.

Payments: this term refers to and includes any direct or indirect offers to pay, promises to pay, authorizations of or payments of anything of value.

Government Official shall mean:

- Any officer or employee of a government or any department, agency or instrument of a government;
- Any person acting in an official capacity for or on behalf of a government or any department, agency, or instrument of a government;
- Any officer or employee of a company or business owned in whole or part by a government;
- Any officer or employee of a public international organization such as the World Bank or United Nations;
- Any officer or employee of a political party or any person acting in an official capacity on behalf of a political party; and/or
- Any candidate for political office.

Schedule 1.109

NET SALES

"Net Sales" means gross invoiced sales of Product to Third Parties by GSK or its Affiliates or sublicensees in a particular period, less the following deductions from such gross amounts which are actually incurred, allowed, paid, accrued or specifically allocated:

(a) credits or allowances actually granted for damaged Product, returns or rejections of Product, price adjustments, and billing errors;

(b) governmental and other rebates (or equivalents thereof) granted to managed health care organizations, pharmacy benefit managers (or equivalents thereof), national, state/provincial, local, and other governments, their agencies and purchasers, and reimbursers, or to trade customers;

(c) such Party's normal and customary trade, cash and quantity discounts, allowances, and credits actually allowed or paid;

(d) commissions allowed or paid to Third Party distributors, brokers, or agents other than sales personnel, sales representatives, and sales agents employed by such Party;

(e) transportation costs, including insurance, for outbound freight related to delivery of Product to the extent included in the gross amount invoiced;

(f) sales taxes, value added taxes (VAT), and other taxes directly linked to the sales of Product to the extent included in the gross amount invoiced;

(g) the actual amount of any write offs for bad debt directly relating to sales of Product in the period; and

(h) any other items actually deducted from gross invoiced sales amounts as reported by GSK in its financial statements in accordance with the International Financial Reporting Standards, applied on a consistent basis.

SCHEDULE 3.5

R&D POLICY PRINCIPLES

A. Ethical Conduct Requirements

Ethical Conduct

The Parties are committed to the highest standards of conduct in all aspects of their respective businesses and to conduct their business with honesty and integrity, and in compliance with all applicable legal and regulatory requirements.

- Always act with integrity and honesty and protect the Parties' public image and reputation in relationships with customers, competitors, suppliers, business partners and staff
- Promptly raise any concerns about possible unethical or illegal conduct
- Be free from actual or potential conflicts of interest that might influence, or appear to influence their judgment or actions when performing duties on behalf of the Parties
- The Parties' reputation and the respect of those who deal with the Parties must not be put at risk by acceptance of any entertainment, gifts or favors intended or perceived by others to influence their business judgment
- Communications with external audiences, i.e., Investors and the Media, should be managed through appointed company spokespersons to minimize risk to the Parties' reputation
- Provide accurate and reliable information in records submitted, safeguard the Company's confidential information, and respect the confidential information of other parties with whom the Company does business or competes

Management of Human Safety Information

The safeguarding of human subjects participating in clinical trials and patients who use devices or take investigational or licensed medicinal products, certain consumer healthcare products, vaccines, or biological products (the foregoing collectively referred to as the "Products") is of paramount importance. Products would also include blinded, placebo, or control agents used in clinical studies. Therefore, the Parties require a framework for management of Human Safety Information. The framework includes, but is not limited to:

- Safety reviews of Products to evaluate emergent safety data
- Creation of appropriate committees and safety departments to proactively address human safety throughout Product development
- Reporting of Human Safety Information to safety departments in a timely fashion. This includes any information relating to human health and/or wellbeing arising following exposure of humans to products including reports of drug abuse or overdose, reports of drug interaction, or information received as part of product complaints

Care and Ethical Treatment of Animals in Research

- Animals should be used in research only when required by regulatory authorities or where there are no alternatives through adherence to the "3R" Principles—reducing the

number of animals used, replacing animals with non-animal methods whenever possible and refining the research techniques used. In addition, the Parties include two more R's: Responsibility and Respect for animals involved in animal research.

- The Parties believe in using the highest standards for the humane care and treatment of all animals used in research, development and testing, including adherence to the principles (listed below), and all applicable legal and regulatory requirements, with a default to which ever is more stringent.

    - Access to species appropriate food and water
    - Access to species specific housing, including species appropriate temperature and humidity levels
    - Access to humane care and a program of veterinary care
    - Animal housing that minimizes the development of abnormal behaviors and allows for normal species specific behavior,
    - Adherence to principles of replacement, reduction and refinement in the design of in vivo studies
    - Study design reviewed by institutional ethical review panel Commitment to minimizing pain and distress during in vivo studies
    - Work performed by appropriately trained staff
    - No Great Apes should be used for research

B. Requirements for Engaging External Experts and Healthcare Professionals

Use of External Experts within R&D

The Parties believe that the engagement of external experts in R&D should be done in accordance with the following principles:

- There must be a legitimate need for the services of the expert that cannot be fulfilled in-house, and the minimum number of experts needed should be used
- Selection of experts should be based solely on the expert's qualifications and expertise in the subject matter for which such expert is retained
- The expert's services must be documented in a written signed agreement
- Compensation must be based on fair market value for the services provided
- Reimbursement or pre-payment for costs associated with travel, lodging, meals and hospitality (i.e. refreshments, background music at meetings) for an expert are acceptable if permitted by all law for the location in which the services are rendered and are modest in value

- Experts shall not receive any gifts of any value, especially where the expert is also a healthcare professional
    - Gift includes anything of value, regardless of amount, given to show friendship, appreciation, or support, including meals, entertainment or recreational activities (excludes fair market value for services rendered).

- Healthcare Professionals includes, but is not limited to, physicians, their allied health professionals, and medical office staff. This term also applies to pharmacists and employees of pharmacy benefit managers.

C. Requirements for Funding for Charitable Donations and External Science/Medical Programs

Charitable Donations

Charitable donations to an eligible Health-Related Organization are allowed. Charitable donations of either funds or in-kind support are permitted if they are for the purpose of advancing the general mission of an eligible, health-related recipient organization and if they are not tied or directed to a specific event or program.

To be considered eligible for a donation, the health-related organization must meet all of the following:

- Non-profit organization
- The organization's principle mission involves advancing science, medicine, or public health (collectively, a "health-related" mission)
- The organization does not prescribe, purchase or recommend the Parties products, unless the request for a charitable donation for such an organization is for a widely publicized fund-raising event or campaign in support of the health-related mission of the organization
- The organization, as well as its management and leadership, are independent of the control of the Parties or undue influence of any of the Parties' employees or agents

Even if the health-related organization is eligible to receive a charitable donation, the donation may not be provided if a donation is intended:

- As a means of rewarding the prescribing, recommending, or use of the Parties products or services, including the influencing of formulary inclusion or placement
- As a means of promoting the use of the Parties products or services. Return on investment (ROI) analyses are not permitted
- As a means of supporting political causes or candidates
- As a means of supporting any organization or activity without a direct and bona fide scientific, medical, or public health purpose

General Requirements for US Independent Medical Education

Funding for External Science/Medical Programs (FESMP) means financial support of specific activities intended to further the progress of science, scientific/medical education, and the public health, for which the Parties will not take any intellectual property or other proprietary interest.

- A recipient of FESMP must be reasonably qualified to conduct high quality educational programs, research, or other activity being funded
- FESMP is not permitted if used as a means of rewarding the prescribing, recommending, or use of the Parties products or services, including the influencing of formulary inclusion/placement

- A recipient of FESMP must agree to make meaningful disclosure of any financial sponsorship from the partner
- FESMP may not be "expensed" or paid with the personal funds of an employee or contractor, and then reimbursed
- FESMP is not permitted as a means of supporting political causes or candidates
- FESMP is not permitted if used as a means of supporting any organization or activity without a direct and bona fide scientific, medical, or public health purpose
- FESMP must comply with all substantive and procedural requirements established by the law where the program or activity potentially being funded will take place

D. Clinical Research Requirements

Maintaining the Confidentiality of Protected Medical Information

The Parties respect the confidential nature of protected medical information (PMI) originating from both healthy and patient volunteers involved in clinical, genetic, and other research work or from staff employed by the Parties. Therefore, a framework should be in place to safeguard PMI against inappropriate collection, retention, use and disclosure (in addition to compliance with law and regulations).

Safeguards include, but are not limited to:

- Collecting PMI only for specific and lawful purposes
- Collecting, retaining, using, reusing, and disclosing PMI only with valid consent or as otherwise permitted by law or regulation
- PMI obtained from external sources is treated as a re-use and all reuse must be consistent with the original informed consent
- Retention of PMI only for as long as business activities or scientific research requires and retention of only the minimum amount of identifying information necessary
- Ensuring the physical and technological security of PMI
- Not using PMI in external publications

- Never transferring PMI from the pharmaceutical R&D division to the marketing function unless permission is obtained from the individual

If PMI is collected that indicates the need for immediate clinical intervention, that information will be communicated to the study investigator or physician of record.

Personally Identifiable Information (PII) means information which identifies a specific individual including but not limited to, name, address, and national identification numbers (e.g. Social Security Number)

Protected Medical Information (PMI) is PII that describes clinical and medical conditions, genetic status, treatment of conditions, health status, sexual orientation, ethnic origin, etc and includes both encoded clinical trial data and overtly identifiable data.

Standards for Collecting, Obtaining and Using Human Biological Samples in Research

The Parties respect the interest of donors of human biological samples used in research and require that certain standards should apply to the collection, obtaining and use of such human biological samples, as set forth below.

- Ensure that samples are collected with informed consent and ethics committee/ Institutional Review Board (IRB) approval in accordance with the applicable research requirements of Good Clinical Practice (International Conference on Harmonization). Additionally, through informed consent, donors must be made aware that the research is being undertaken by a commercial entity and that, where applicable, the research involves the analysis of DNA and /or medical information.
- When obtaining samples from another entity that collected the samples for reasons unrelated to the Parties, confirmation that the entity complied with relevant requirements for informed consent, ethics committee/IRB approval and data privacy is required
- Human biological samples must be used only for purposes that are consistent with the consent obtained and in compliance with relevant laws and regulations
- Additional individual donor consent and ethics committee/IRB approval should be obtained when the research use intended is inconsistent with /beyond the scope of the original consent. Additional consent should also be obtained if the original consent did not include analysis of DNA (if relevant to the research proposal) or use of any associated medical information (if relevant to the research proposal).
- In general, cell lines (e.g. HeLa), derivatives (e.g. isolated proteins) and preparations of human biological materials (e.g. sub-cellular fractions) that are well established and made available for research use, do not require re- consent and/or ethics committee/IRB approval for the intended research use
- Proposals to collect, obtain, or use human embryonic or foetal samples for research should be carefully reviewed and such research must have the potential to benefit patients

Conduct and Public Disclosure of Human Subject Research

The Parties carry out human subject research in accordance with the ethical principles of respect for persons, beneficence, and justice. Such research conforms to high ethical, medical and scientific standards. Specific principles for different types of human subject research are set forth below.

All Human Subject Research

All human subject research must be conducted in accordance with the following principles:

- Human subject research is conducted in accordance with the ethical principles of respect for persons, beneficence and justice
- Human subject research always has a legitimate scientific purpose and is not designed with the objective of rewarding healthcare professionals for using, purchasing, recommending, or prescribing the Parties' products
- Sales/marketing/commercial staff generally does not participate in the initiation or conduct of human subject research
- Placebo controlled studies are conducted only when there are scientifically sound methodological reasons, where the risks are minimized and reasonable in relation to

the knowledge gained, and when patients who receive placebo will not be subject to any additional risk of harm
- The standard of care required by the study design is, as a minimum, consistent with local standards of care
- Human subject research should be publicly disclosed and ideally published in the searchable, peer reviewed, scientific literature

In most circumstances, summary protocols and summary results of clinical studies are posted on publicly available registers and/or in the scientific literature within appropriate timelines.

- External proposals for additional analyses of human subject research studies are assessed for scientific merit and undertaken as collaborations between in-house scientists and the proposer.
- Clinical studies are never terminated for solely financial reasons.

Interventional Human Subject Research

In addition to the foregoing general principles applicable to all human subject research, the following principles apply to the conduct of Interventional Human Subject Research:

- Interventional human subject research is conducted in accordance with the ethical principles of the Declaration of Helsinki, the principles of ICH GCP E6, ICH El 1 (pediatrics)
- Interventional studies of medicinal and other products are conducted in countries where the products are expected to be sold in and suitable for the wider community of the country
- All interventional human subject research is conducted only with the approval of Institutional Review Boards or Independent Ethics Committees
- When interventional human subject research is conducted in developing countries, the Parties seek agreement with key interested external parties in the country on the conduct of the research, including the standard of care provided during the study, the scientific rationale for interventions, including placebo, the provision of healthcare for subjects after the study, and the fate of any capacity built for the conduct of the study
- All interventional human subject research requires the informed consent of subjects (or their legal representative) who participate in the research
- When nationally licensed medicinal products that are not the subject of the research study are required for the routine care of a patient during the conduct of the study, the Parties only fund these when they are not funded by the normal healthcare infrastructure and there is assurance that they or suitable alternatives will be available and funded after the study while the medical need exists
- For diseases/conditions that continue beyond the end of an interventional study, the Parties must be assured the healthcare system is able to provide, and will take responsibility for, the continued care of study subjects
- When there is a compelling medical rationale for patients who have derived measurable medical benefit from an investigational medicinal product during an interventional study

to continue to receive that product after the study, the Parties endeavor to provide that treatment either through additional clinical studies or through expanded access programs
- The Parties provide investigators with the summary results of interventional studies in which they participate, and encourages investigators to inform their subjects of the results

Meta-analyses and Pooled Analyses

The following principles apply to research that uses data from more than one previously conducted clinical study (Meta-analyses and Pooled Analyses):

- Research utilizing data from the Parties' previous clinical studies in a manner inconsistent with, or beyond the scope of, the original informed consent requires re-consent of the subjects, or if this is not practical, IRB/IEC approval. If this is not practical, the data are anonymized
- The Parties review, before submission for publication, any proposed manuscripts, presentations or abstracts prepared by research collaborators which originate from the Parties human subject research studies (including the Parties supported studies)

Non-Interventional (observational) Human Subject Research

The following principles apply to Non-interventional (observational) human subject research:

- For observational studies where clinical data are collected by or on behalf of the Parties specifically for the purpose of the research, the Parties abide by the local legal requirements and regulations for informed consent for the use of these data and IRB/IECs approval is obtained
- For observational studies using healthcare databases, the Parties are assured that there is compliance with relevant legal requirements for data privacy and that patients have provided informed consent for the use of their data in research, or IRB/IEC approval has been obtained for that use; or other measures to protect privacy are in place (e.g. the data are anonymized)

AMENDMENT 1 TO THE
INHALED COLLABORATION AND OPTION AGREEMENT

This Amendment no. 1 to the Agreement ("**Amendment**") is made effective as of the 13th day of May 2015 ("**Amendment Effective Date**") by and between:

LIQUIDIA TECHNOLOGIES, INC., a Delaware corporation, having its principal place of business at 419 Davis Dr., Suite 100, Morrisville, NC 27560 ("**Liquidia**") on the one part and;

GLAXO GROUP LIMITED, a company organized and existing under the laws of England and having an office and place of business at 980 Great West Road, Brentford, Middlesex TW8 9GS England ("**GSK**") on the other part.

WHEREAS, the Parties have entered into the INHALED COLLABORATION AND OPTION AGREEMENT, dated June 15th, 2012 ("**the Agreement**"); and

WHEREAS, the Parties wish to extend the Inhaled Collaboration Term on the terms provided herein.

NOW THEREFORE, in consideration of the foregoing premises and the mutual covenants and conditions contained in this Amendment, the Parties agree as follows:

1. All capitalized terms used but not defined herein have the meanings ascribed to them in the Agreement.

2. Section 3.3(a) of the Agreement is hereby deleted and replaced with the following:

   "Subject to the extensions provided in Sections 3.3(b) and (c), the term of the Inhaled Collaboration (the "**Inhaled Collaboration Term**") shall commence on the Effective Date and expire on December 15, 2015. Notwithstanding the foregoing, with respect to the Liquidia Respiratory Option and Respiratory Option Notice the initial Inhaled Collaboration Term of June 15, 2015 shall continue to control."

3. Section 4.2(b) of the Agreement is hereby deleted and replaced with the following:

   "GSK may exercise the Inhaled Option by providing written notice to Liquidia (the "**Inhaled Option Notice**") at any time before or upon the expiration of the Inhaled Collaboration Term (the "**Inhaled Option Period**"). Notwithstanding the foregoing, all final data and results generated by or on behalf of Liquidia

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under the Inhaled Collaboration through June 15, 2015 shall be provided to GSK as soon as reasonably practicable to enable GSK to determine whether or not to exercise the Inhaled Option during the Inhaled Option Period."

4. As of the Amendment Effective Date, in accordance with Section 2.1(d)(iii), the JSC has approved an updated Inhaled Plan and associated budget setting forth the Collaboration Costs expected to be incurred by Liquidia in the performance thereof. The updated Inhaled Plan is attached hereto as **Appendix A**, and establishes the work to be performed by Liquidia and GSK from June 15, 2015 through September 9, 2015. For clarity, in accordance with Appendix A, (i) Liquidia will not transfer to, nor be obligated to transfer to GSK any Research Materials after June 15, 2015, up to the date GSK exercises the Inhaled Option and (ii) all activities by Liquidia and GSK stop on September 9, 2015, provided GSK has not exercised the Inhaled Option. Collaboration Costs incurred in connection with the Inhaled Plan attached as Appendix A shall be managed in accordance with the terms of the Agreement in force as of the Amendment Effective Date and which remain unchanged by this Amendment, except as provided in Section 8 below.

5. In partial consideration for Liquidia's agreement to manufacture GMP PRINT Materials prior to the exercise by GSK of the Inhaled Option, as well as additional activities regarding the ribavirin program set forth in the updated Inhaled Plan, GSK shall pay to Liquidia a one-time non-refundable payment of [***] Dollars ($[***]) (the "Amendment Payment") within 30 days after receipt of an invoice from Liquidia after the Amendment Effective Date, which invoice shall be sent in PDF format to [***] with a copy to the Alliance Manager. The Amendment Payment shall be payable by wire transfer of immediately available funds in accordance with wire transfer instructions of Liquidia provided in writing to GSK on or prior to the Amendment Effective Date.

6. The GMP PRINT Materials referred to in Section 5 above (the "Ribavirin PRINT Materials") will be manufactured, tested, packaged, stored, labeled, released and delivered in accordance with GMP, any specifications provided by GSK, the Quality Agreement and Technical Agreement to be entered into promptly after the Amendment Effective Date, and all applicable laws, and supplied in accordance with Section 3.5(c) of the Agreement; provided, that the Parties agree that the Ribavirin PRINT Materials will be shipped to GSK within five (5) days after Liquidia's receipt of the Inhaled Option Notice from GSK. For clarity, the Parties shall promptly negotiate in good faith the Development Supply Agreement in accordance with the Agreement, which shall be executed prior to any human dosing. Upon execution of the Development Supply Agreement, the terms of the Development Supply Agreement shall supersede

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the terms set forth above in this Section 6 with respect to the manufacture and supply of such Ribavirin PRINT Materials.

7. The payment for the milestone entitled "First dosing of First Patient in Phase I Clinical Trial" for a New Therapeutic is hereby reduced from Three Million Dollars ($3,000,000) to One Million Five Hundred Thousand Dollars ($1,500,000) solely with respect to the first achievement of such milestone by a New Therapeutic Product. For clarity, after this milestone is first time achieved by a New Therapeutic, it will thereafter be payable at three million Dollars ($3,000,000) in accordance with Section 10.4.

8. In the event that GSK terminates the Agreement in its entirety in accordance with Section 15.2, prior to expiration of the Inhaled Collaboration Term without exercising the Inhaled Option, then, in addition to the rights and obligations of the Parties as set forth in Article 15, the following provisions shall apply: (a) Liquidia shall cease all activities under the Inhaled Plan upon receipt of GSK's written notice of termination, and (b) GSK shall reimburse Liquidia for all Collaboration Costs incurred (including any non-cancellable Collaboration Costs set forth in the budget) for activities conducted through the date of notice of termination.

9. All references to "[***]" in Sections 10.2, 10.3(a), 10.3(b) and 10.4(d) shall be replaced with GSK's Alliance Manager.

10. All other terms of the Agreement will remain unchanged and in full force and effect.

IN WITNESS WHEREOF, THE PARTIES HAVE EXECUTED THIS AMENDMENT BY THEIR DULY AUTHORIZED OFFICERS AS OF THE EFFECTIVE DATE.

GLAXO GROUP LIMITED		**LIQUIDIA TECHNOLOGIES, INC.**	
By:	/s/ Paul Williamson	By:	/s/ Neal F. Fowler
Name:	Paul Williamson	Name:	Neal F. Fowler
Title:	Authorised Signatory	Title:	CEO

Appendix A

[***]

[Four pages omitted in their entirety]

SECOND AMENDMENT TO THE
INHALED COLLABORATION AND OPTION AGREEMENT

This Second Amendment ("**Amendment 2**") is made effective as of the 19th day of November 2015 ("**Amendment 2 Effective Date**") by and between:

LIQUIDIA TECHNOLOGIES, INC., a Delaware corporation, having its principal place of business at 419 Davis Dr., Suite 100, Morrisville, NC 27560 ("**Liquidia**") on the one part and;

GLAXO GROUP LIMITED, a company organized and existing under the laws of England and having an office and place of business at 980 Great West Road, Brentford, Middlesex TW8 9GS England ("**GSK**") on the other part.

WHEREAS, the Parties have entered into the INHALED COLLABORATION AND OPTION AGREEMENT, dated June 15th, 2012, and Amendment 1 to the Inhaled Collaboration and Option Agreement, dated May 13, 2015, (collectively "**the Agreement**");

WHEREAS, GSK exercised the Inhaled Option under Section 4.2 of the Agreement on September 4, 2015;

WHEREAS, the Parties wish to amend the Agreement to provide a mechanism for Liquidia to conduct additional Inhaled Plans on Research Materials and PRINT Materials after exercise of the Inhaled Option by GSK while GSK continues the development of Research Products in an effort to commercialize Inhaled Products; and

WHEREAS, the Parties do not intend to revive any provisions of the Agreement that expired or terminated upon exercise by GSK of the Inhaled Option.

NOW THEREFORE, in consideration of the foregoing premises and the mutual covenants and conditions contained in this Amendment 2, the Parties agree to amend the Agreement from and after the Amendment 2 Effective Date as follows:

1. All capitalized terms used but not defined herein have the meanings ascribed to them in the Agreement.

2. Section 1.50 is hereby amended and replaced in its entirety with the following new Section 1.50:

   "1.50 "**FTE Rate**" means, as of the Amendment 2 Effective Date, an annual rate of $[***] per FTE. The FTE Rate may be changed by Liquidia, upon notice to GSK and inclusion of the modified FTE Rate in the budget for the applicable

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Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

future Additional Inhaled Plan, to reflect any year-to-year percentage increase or decrease from the Amendment 2 Effective Date as reflected in the United States Consumer Price Index – All Urban Consumers, as published by the U.S. Department of Labor, Bureau of Labor Statistics, unless the Parties agree, through the JSC, to a greater increase to the FTE Rate." For clarity, the JSC has agreed as of the Amendment 2 Effective Date that Liquidia's annual FTE rate shall be adjusted to $[***] per FTE beginning with the next Additional Inhaled Plan.

3. Section 1.77 is hereby amended and replaced in its entirety with the following new Section 1.77:

   "1.77 '**Inhaled Plan**' has the meaning set forth in Section 3.2. For clarity, '**Initial Inhaled Plan**" means the Inhaled Plan conducted prior to exercise by GSK of the Inhaled Option and '**Additional Inhaled Plan**' means any Inhaled Plan conducted after the exercise by GSK of the Inhaled Option."

4. The term "**Inhaled Plan**" as used in 1.60, 1.62, 1.119, 1.134, 2.1, 2.2, 3.5, 3.6, 3.7, 3.8, 5.2, 5.5, 9.1(a), 10.2, 11.3, 12.2(j), 12.4, 13.1, 13.2, 14.3, and 15.3 of the Agreement shall hereinafter encompass both the Initial Inhaled Plan as well as any Additional Inhaled Plans.

5. Article 2 is hereby amended to include Section 2.7 which states the following:

   "2.7 **Continuation of JSC and JIRC**. In the event that Additional Inhaled Plans are being carried out during the Inhaled Collaboration Term after exercise by GSK of the Inhaled Option, the JSC and the JIRC shall continue to oversee and conduct the activities of the Collaboration Program, including without limitation the Inhaled Collaboration, and any such Additional Inhaled Plans to the extent the JSC's or JIRC's actions and oversight are necessary with respect to the Collaboration Program or the Additional Inhaled Plans. After exercise of the Inhaled Option, however, the JSC and JIRC shall cease to have any responsibility with respect to the development of Research Products or commercialization of Inhaled Products and any oversight responsibility for those activities will be carried out by the Advisory Council as set forth in Section 2.5."

6. Section 3.1 of the Agreement is hereby amended to include the following sentence at the end of Section 3.1:

   "Additionally, the Parties desire to explore potential applications of PRINT and GSK Materials selected by GSK in its sole discretion, in the Inhaled Field under specific Additional Inhaled Plans, where activities under such Additional Inhaled Plans will continue after exercise by GSK of the Inhaled Option. For clarity, any such Additional Inhaled Plan that continues after exercise by GSK of the Inhaled Option shall be considered a continuation of the Inhaled Collaboration."

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

7. Section 3.2 of the Agreement is hereby amended and replaced in its entirety with the following new Section 3.2:

   "3.2 **Inhaled Plan**. The Parties shall conduct the Inhaled Collaboration pursuant to one or more work plans (each an "**Inhaled Plan**") that sets forth specific activities to be pursue by each Party. As of the Effective Date of the Agreement, the Parties agreed upon the Initial Inhaled Plan and associated budget which was attached to the Agreement as Exhibit C. Under the Initial Inhaled Plan, Liquidia would be primarily responsible for generating PRINT Materials, generating Research Materials using PRINT Materials and GSK Materials, and scaling up its manufacturing capabilities, and GSK would be primarily responsible for in vitro and in vivo evaluation of the PRINT Materials and Research Materials in assays and preclinical models. The Parties acknowledge that the Initial Inhaled Plan will terminate upon expiration by GSK of the Inhaled Option. In the event the Parties desire to pursue Additional Inhaled Plans beyond the Initial Inhaled Plan, the Parties shall work together to set forth mutually agreed specific activities to be pursued by each Party, including detailed budgets associated with such activities, timelines, deliverables, and each Party's responsibility under the Additional Inhaled Plans. All Additional Inhaled Plans beyond the Initial Inhaled Plan shall be prepared in a similar form to the Initial Inhaled Plan attached to the Agreement as Exhibit C and shall be subject to JSC approval. From time to time (at least on an annual basis), the JIRC shall update and prepare amendments to the then-current Additional Inhaled Plan(s) and associated budget and shall submit such amendments and budget to the JSC for review and approval. Once approved by the JSC, such revised Additional Inhaled Plan(s) and budget shall replace the prior applicable Additional Inhaled Plan(s) and budget. If the terms of any Additional Inhaled Plan contradict, or create inconsistencies or ambiguities with, the terms of this Agreement, as amended, then the terms of this Agreement shall govern and control."

8. Section 3.3 of the Agreement is hereby amended and replaced in its entirety with the following new Section 3.3:

   "3.3 **Inhaled Collaboration Term**. The term of the Inhaled Collaboration (the "**Inhaled Collaboration Term**") shall commence on the Effective Date and expire upon completion of all Inhaled Plans, including any Additional Inhaled Plan(s), as determined by the JSC."

9. Section 3.4 of the Agreement is hereby amended and replaced in its entirety with the following new Section 3.4:

   "3.4 **Collaboration Costs**. GSK shall be responsible for Liquidia's FTE Costs, nonstandard costs for lab supplies and manufacturing cost of PRINT

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Materials and Research Materials incurred solely in connection with the conduct of the Inhaled Plans (and not for activities outside of the conduct of the Inhaled Plans or in furtherance of Liquidia's collaborations with Third Parties) in accordance with the applicable budget (the "**Collaboration Costs**"). For clarity, manufacturing costs included in the Collaboration Costs for the Initial Inhaled Plan shall not exceed [***]Dollars ($[***]) per single shift day for standard cost and shall not include any costs associated with capital expenditures for Liquidia's manufacturing facilities unless otherwise agreed by the Parties in accordance with Section 2.1(e)(ii). Notwithstanding anything to the contrary in this Agreement (including the Initial Inhaled Plan and any revisions thereto), GSK shall fund no less than three (3) Liquidia FTEs, but no more than four (4) Liquidia FTEs to work on the Initial Inhaled Plan per year. If the activities to be conducted under the Initial Inhaled Plan require additional FTE support, then the JSC shall meet to discuss how to staff such additional activities, which may include contribution of GSK FTEs, at GSK's cost, to perform activities assigned to Liquidia. With respect to any costs and expenses incurred in connection with any Additional Inhaled Plan being conducted after GSK's exercise of the Inhaled Option, GSK shall be responsible for all such costs and expenses. The Parties will agree on a budget for such Additional Inhaled Plan and any costs and expenses related to such Additional Inhaled Plans shall be considered part of the Collaboration Costs, including the applicable FTE Costs and manufacturing costs. Notwithstanding the foregoing, GSK and Liquidia, through the JSC, shall agree on the FTE Costs, including without limitation the number of FTEs, for such Additional Inhaled Plans being conducted after GSK's exercise of the Inhaled Option. GSK shall reimburse Liquidia for the Collaboration Costs as set forth in Section 10.2. For the avoidance of doubt, GSK shall be responsible for all cost and expenses incurred by GSK to conduct the Inhaled Collaboration."

10. Section 5.1 of the Agreement is hereby amended and replaced in its entirety with the following new Section 5.1:

"5.1 **Collaboration License Under Liquidia Technology.** Subject to the terms and conditions of this Agreement, Liquidia hereby grants to GSK a non-exclusive, worldwide, sublicensable license, under the Liquidia Technology for the sole purpose of carrying out GSK's obligations and research rights under the Inhaled Plans, which license shall become effective on the Effective Date and shall expire upon the expiration of the Inhaled Collaboration Term. The license grant in this Section 5.1 will include the right to have made Research Materials as further described in Section 5.2(c)(i)."

11. The Parties acknowledge that, as of September 4, 2015, GSK has exercised the Inhaled Option. Accordingly, any restrictions on the Parties as set forth in Sections 11.4(a), (b) and (c) have expired with respect to the Joint Inhaled Collaboration Know-How resulting from the Initial Inhaled Plan and each Party may use and disclose Joint Inhaled Collaboration Know-How arising from the Initial Inhaled Plan in accordance with their ownership interest therein. For clarity, as of September 4, 2015, Sections 11.4(a), (b) and (c) continue in full force and effect as such sections apply to any Joint Vaccine Collaboration Know-How resulting from the Vaccine Plan.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

12. Section 11.4 of the Agreement is hereby amended to include the following Section 11.4(d):

"(d) With respect to Joint Inhaled Collaboration Know-How arising from an Additional Inhaled Plan, each Party shall be free to use and disclose such Joint Inhaled Collaboration Know-How in accordance with their ownership interest therein, provided however, a Party seeking to disclose to or use with a Third Party any Joint Inhaled Collaboration Know-How arising from an Additional Inhaled Plan prior to the completion or termination of such Additional Inhaled Plan shall provide the Joint Patent Committee ("JPC") with a copy of such proposed disclosure or information intending to be used at least forty five (45) days prior to its intended use thereof. Before expiration of this forty five (45) day period, the JPC shall approve such disclosure or request an additional sixty (60) days to prepare and file a patent application on such subject matter. The Party seeking to disclose such Joint Inhaled Collaboration Know-How to or use such with a Third Party shall be free to use and disclose such information in accord with its ownership interest therein (i) if the JPC does not approve or request such further delay within the first forty five (45) day period or (ii) after expiration of the sixty (60) day period during which the JPC has the right to seek patent protection on any Joint Inhaled Collaboration Know-How. Notwithstanding anything to the contrary in this Section 11.4(d), each Party shall be free to use and disclose such Joint Inhaled Collaboration Know-How arising from an Additional Inhaled Plan in accordance with their ownership interest therein after completion or termination of such Additional Inhaled Plan."

13. The use and extension of the "**Inhaled Collaboration Term**" under this Amendment 2, including any Additional Inhaled Plan implemented after the exercise by GSK of the Inhaled Option, shall not revive the meaning and effect given thereto in Sections 4.1(c), 4.1(d) and 4.2(b) of the Agreement.

14. Section 15.5(b)(i) shall be renamed "**Termination Prior Inhaled Option Exercise**" and the first clause of Section 15.5(b)(i) is hereby amended and replaced with the following:

"If GSK terminates the Agreement pursuant to Section 15.3 prior to exercise of the GSK Option, then: . . ."

15. All other terms of the Agreement will remain unchanged and in full force and effect.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

IN WITNESS WHEREOF, THE PARTIES HAVE EXECUTED THIS AMENDMENT BY THEIR DULY AUTHORIZED OFFICERS AS OF THE DATE FIRST WRITTEN ABOVE.

GLAXO GROUP LIMITED		**LIQUIDIA TECHNOLOGIES, INC.**	
By:	/s/ Paul Williamson	By:	/s/ Shawn Glidden
Name:	Paul Williamson	Name:	Shawn Glidden
Title:	Authorised Signatory	Title:	VP Legal Affairs & Secretary

AMENDED AND RESTATED LICENSE AGREEMENT

This **LICENSE AGREEMENT** is entered into as of December 15, 2008 and is hereby made effective as of December 15, 2008 (the "EFFECTIVE DATE") by and between The University of North Carolina at Chapel Hill having an address at Campus Box 4105, 308 Bynum Hall, Chapel Hill, North Carolina, 27599-4105 (hereinafter referred to as "UNIVERSITY") and Liquidia Technologies, Inc., a corporation organized and existing under the laws of the State of Delaware having its principal office/place of business at 419 Davis Drive, Suite 100, Durham, NC 27713 (hereinafter referred to as "LICENSEE").

WITNESSETH

WHEREAS, UNIVERSITY owns and controls certain valuable inventions relating to the fabrication, use and engineering of various technologies, including microfluidic devices, small-scale particles, and display devices; and

WHEREAS, UNIVERSITY jointly owns patent applications relating to, and including, the patent application "Photocurable Perfluoropolymers for use as Novel Materials in Microfluidic Devices," contained in UNIVERSITY files reference number 04-0013 with The California Institute of Technology, ("CALTECH") and has entered into an Inter-Institutional Agreement on September 16, 2004 and First Amendment to Inter-Institutional Agreement having an effective date of December 8, 2008 (collectively "IIA") whereby CALTECH has granted UNIVERSITY the exclusive right to grant licenses under CALTECH's rights to such patent applications in all fields except microfluidics and microfluidic devices to LICENSEE (CALTECH has separately licensed its rights in microfluidics and microfluidic devices); and

WHEREAS, the INVENTIONS (as defined below) were, in part, developed by Joseph M. DeSimone and Edward T. Samulski ("INVENTOR(S)") of the UNIVERSITY; and

WHEREAS, UNIVERSITY is interested in licensing its information and technology concerning the INVENTIONS in a manner that will benefit the public, and the grant of a license best facilitates the distribution of useful products and the utilization of new processes; and

WHEREAS, LICENSEE desires to obtain a license to use the INVENTIONS as herein provided and commits to using best efforts and resources, taking into account the financial condition of LICENSEE and general business and market conditions, in a thorough, vigorous and diligent program of commercializing products and processes based upon or embodying said INVENTIONS under the terms and conditions set forth herein;

WHEREAS, LICENSEE, UNIVERSITY, and North Carolina State University ("NCSU") have previously entered into a certain License Agreement, dated November 8, 2004 which was amended under a First Amendment to License Agreement on April 10, 2006, and a Second Amendment to License Agreement on August 16, 2007 (the "NOVEMBER 2004 LICENSE AGREEMENT"), pursuant to which UNIVERSITY and NCSU granted such a license to LICENSEE, and LICENSEE, UNIVERSITY, NCSU, and CALTECH have previously entered into a certain License Agreement, dated December 17, 2004 (the "DECEMBER 2004 LICENSE

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

AGREEMENT"), pursuant to which UNIVERSITY, NCSU, and CALTECH granted such a license to LICENSEE (collectively, the NOVEMBER 2004 LICENSE AGREEMENT and DECEMBER 2004 LICENSE AGREEMENT are referred to hereinafter as "ORIGINAL LICENSE AGREEMENT");

WHEREAS, the parties desire to combine the ORIGINAL LICENSE AGREEMENTS into a single amended and restated agreement to: 1) remove NCSU as a party (due to an executed Inter-Institutional Intellectual Property Agreement on November 6, 2007 and a First Amendment to Inter-Institutional Intellectual Property Agreement, having an effective date of December 8, 2008, between NCSU and UNIVERSITY that declares that NCSU has no rights or interest in INVENTIONS and empowers UNIVERSITY to enter into this Agreement on its own), 2) remove CALTECH as a party to the DECEMBER 2004 LICENSE AGREEMENT (due to the execution of the IIA that empowers UNIVERSITY to enter into this Agreement on its own) and 3) to reflect certain amendments agreed upon in connection with the ongoing development of products and services incorporating the INVENTIONS;

NOW, THEREFORE, in consideration of the premises and mutual promises and covenants contained in this LICENSE AGREEMENT and for good and valuable consideration, it is agreed by and between UNIVERSITY and LICENSEE as follows:

ARTICLE 1

DEFINITIONS

1.1 "**AFFILIATE**" means (a) any person or entity which owns or controls at least fifty percent (50%) of the equity or voting stock of the LICENSEE, or (b) any person or entity fifty percent (50%) of whose equity or voting stock is owned or controlled by LICENSEE or (c) any person or entity of which at least fifty percent (50%) of the equity or voting stock is owned or controlled by the same person or entity owning or controlling at least fifty percent (50%) of LICENSEE.

1.2 "**INVENTIONS**" means the inventions described or disclosed in the invention disclosures, including all paperwork, patent applications, supporting data and related documentation filed with UNIVERSITY's Office of Technology Development and identified by the 'UNC ref: No' listed on **Exhibit A** to this LICENSE AGREEMENT.

1.3 "**LICENSED FIELD**" means all fields.

1.4 "**LICENSED PRODUCTS**" means any method or process, composition, product, or component part thereof covered in whole or in part by an issued, unexpired, or pending claim contained in the PATENT RIGHTS whose manufacture, use or sale includes any use of UNIVERSITY TECHNOLOGY or PATENT RIGHTS.

1.5 "**LICENSED TERRITORY**" means the entire world.

1.6 "**NET SALES**" means the total invoiced sales price less any charges for (a) sales taxes or other taxes separately stated on the invoice, (b) shipping and insurance charges,

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(c) deductions for actual allowances for returned or defective goods and (d) trade discounts, but not cash discounts. LICENSED PRODUCTS will be considered sold when billed out, when delivered or when paid for before delivery, which ever first occurs.

1.7 **"NEW INVENTIONS"** means any invention (i) made by or under the direction of either Joseph M. DeSimone or Edward T. Samulski (ii) made without use of resources or facilities of UNIVERSITY and/or NCSU or funding of third parties and (iii) that is an improvement or modification to the INVENTIONS.

1.8 "**PATENT RIGHTS**" means any United States, foreign or international patents and/or patent applications (including provisional patents) covering the INVENTIONS or NEW INVENTIONS owned or controlled by UNIVERSITY prior to or during the term of this LICENSE AGREEMENT and which UNIVERSITY has the right to provide to LICENSEE, including without limitation, those patents and patent applications set forth in **Exhibit A** attached hereto and incorporated herein by reference, as well as any continuations, divisionals, provisionals, continued prosecution applications, or reissues thereof, and any foreign counterpart of any of the foregoing.

1.9 "**SPECIFIC LICENSED FIELD**" means microfluidics and microfluidic devices, genome mapping, sensors, nanostructures, biologic nanostructures, drug nanostructures, nano-scale reactions, drug screening, cell sorting, drug delivery, vaccines, cosmetics, diagnostics, tissue replication, soft lithography, semiconductors, RFID chips, MEMS, opto-electronic devices, display panels, photovoltaic applications, electrets, catalysts, taggants, drug discovery probes, disease detection probes, specialty coatings, or other fields disclosed in the INVENTIONS.

1.10 "**UNIVERSITIES**" means, collectively, CALTECH and UNIVERSITY.

1.11 "**UNIVERSITY TECHNOLOGY**" means any unpublished research and development information, know-how, and technical data in the possession of INVENTORS (whether prior to or after the EFFECTIVE DATE) which directly relates to and is necessary for the practice of the INVENTIONS or NEW INVENTIONS and which UNIVERSITY has the right to provide to LICENSEE, whether or not prior to or after the EFFECTIVE DATE of the Agreement, including without limitation any provisional, divisional, continuation, and related documents contained in UNIVERSITY files for the INVENTIONS.

ARTICLE 2

GRANT OF LICENSE

2.1 Subject to the terms and conditions of this LICENSE AGREEMENT, UNIVERSITY hereby grants to LICENSEE and its AFFILIATES, to the extent of the LICENSED TERRITORY, an exclusive license to UNIVERSITIES rights under the PATENT RIGHTS and UNIVERSITY TECHNOLOGY to make, have made, use, offer for sale and sell LICENSED PRODUCTS in the LICENSED FIELD, with the right to sublicense, provided, that, LICENSEE's right in the field of microfluidics and microfluidic devices shall be nonexclusive,

with respect to CALTECH'S interest in the patent application "Photocurable Perfluoropolymers for use as Novel Materials in Microfluidic Devices," contained in UNIVERSITY files reference number 04-0013.

2.2 UNIVERSITY reserves the right to practice under the PATENT RIGHTS and UNIVERSITY TECHNOLOGY to make, use and provide LICENSED PRODUCTS for non-commercial research, public service, teaching and educational purposes, without payment of royalties. Furthermore, UNIVERSITY shall be free to publish UNIVERSITY TECHNOLOGY as they see fit; provided that UNIVERSITY shall forward to LICENSEE each public disclosure or publication of UNIVERSITY TECHNOLOGY forty five (45) days prior to its public disclosure or submission for publication. LICENSEE shall, within such forty five (45) day period, advise UNIVERSITY whether LICENSEE wishes to reimburse UNIVERSITY's expenses associated with the filing of a patent application covering such UNIVERSITY TECHNOLOGY as provided in Article 8, prior to the proposed publication or disclosure. Upon the reasonable request of LICENSEE, UNIVERSITY will delay any such publication or disclosure an additional thirty (30) days to allow a patent application to be filed. Notwithstanding any other restrictions or limitations on publications contained herein, the final decision regarding publication of any article or other form of public disclosure shall be at UNIVERSITY's sole discretion, and nothing herein shall be construed so as to prevent or delay the defense or publication of any student thesis or dissertation.

2.3 Notwithstanding the foregoing, any and all licenses and other rights granted hereunder are limited by and subject to the rights and requirements of the United States Government which arise out of its sponsorship of the research which led to the conception or reduction to practice of the INVENTIONS covered by PATENT RIGHTS. The United States Government is entitled, as a right, under the provisions of 35 U.S.C. §§ 200-212 and applicable regulations of Title 37 of the Code of Federal Regulations, to a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on the behalf of the United States Government any of the PATENT RIGHTS throughout the world.

ARTICLE 3

CONSIDERATION

3.1 LICENSEE shall pay to UNIVERSITY, a license issue fee in the form of the reimbursement of costs (including reasonable attorney fees) arising out of the patenting of the INVENTIONS pursuant to Article 8 of this LICENSE AGREEMENT. The reimbursement of patenting costs shall be non-refundable and shall not be a credit against any other amounts due hereunder except as may be provided for elsewhere in this LICENSE AGREEMENT. Reimbursement of patenting costs shall be due within thirty (30) days of billing by UNIVERSITY.

3.2 Equity

3.2.1 As further consideration for the rights granted to LICENSEE under this LICENSE AGREEMENT, LICENSEE prior to December 8, 2008 has issued to The University

of North Carolina at Chapel Hill Foundation, Inc. one hundred and ninety six thousand four hundred and sixty nine (196,469) shares of non-voting common stock of LICENSEE pursuant to the Stock Issuance and Shareholder's Agreements effective November 5, 2004, thereby fully fulfilling its obligation regarding its grant of equity under the ORIGINAL LICENSE AGREEMENT.

3.2.2 LICENSEE has provided to UNIVERSITY prior to December 8, 2008, a capitalization table indicating the total number of issued and outstanding shares of LICENSEE's common stock on a fully-diluted, as-converted basis as of November 9, 2004, pursuant to the Stock Issuance and Shareholder's Agreements effective November 5, 2004, thereby fully fulfilling its obligation to provide a capitalization table under the ORIGINAL LICENSE AGREEMENT.

3.2.3 In the case where shares or securities issued to UNIVERSITY's designees as consideration for this LICENSE AGREEMENT are restricted from resale in compliance with SEC Rule 144 or otherwise as required by law, LICENSEE agrees to remove or cancel the notice of restriction associated with such shares or securities within thirty (30) days of the request of UNIVERSITY provided that any legally required terms of restriction on resale have expired and UNIVERSITY shall have provided such information as is reasonably requested by LICENSEE or LICENSEE's counsel to ensure reliance on Rule 144.

3.3 Beginning on December 12, 2008 and continuing for the life of this LICENSE AGREEMENT, LICENSEE will pay UNIVERSITY a running royalty of [***] percent ([***]%) of all NET SALES of LICENSED PRODUCTS sold by LICENSEE and/or its AFFILIATES. LICENSEE shall pay to UNIVERSITY said royalties on the LICENSED PRODUCTS concurrently with the making of quarterly written reports as provided in Section 4.1 below.

3.3.1 LICENSED PRODUCT sold by LICENSEE to its AFFILIATES shall not be considered NET SALES of LICENSED PRODUCT for purposes of computing royalty obligations hereunder, provided that any subsequent sale by such AFFILIATE shall be included in computing royalty obligations. If such AFFILIATE does not subsequently sell such LICENSED PRODUCT, then the sale by LICENSEE to such AFFILIATE shall be considered NET SALES of such LICENSED PRODUCT for purposes of computing royalty obligations hereunder.

3.4 Sublicensing

3.4.1 In respect to sublicenses granted by LICENSEE under Article 6 below, LICENSEE shall pay to UNIVERSITY [***] percent ([***]%) of any fees, minimum royalties, and any consideration other than royalties that LICENSEE receives from each sublicensee for any rights granted under a sublicense agreement within thirty (30) days of receiving any such payments from each such sublicense. LICENSEE shall not be required to make such payment to UNIVERSITY on fees or other consideration received by LICENSEE from sublicensees as: (i) payment or reimbursement for research and development (including joint development) activities by LICENSEE in connection with LICENSED PRODUCTS or the INVENTIONS (provided that (a) LICENSEE provides to UNIVERSITY the statement of work, including, to the extent

available, a reasonable budget, for each research and development program prior to engaging in each such research and development program and (b) any subsequent sale of such LICENSED PRODUCTS shall be subject to the royalty calculations herein); (ii) payment for LICENSEE services provided in connection with any sublicense provided that such services do not require use of INVENTIONS or

UNIVERSITY TECHNOLOGY, (iii) a loan that is not convertible to shares of LICENSEE's stock and that bears market rate interest, (iv) the purchase price of LICENSEE's equity securities at fair market value, (v) reimbursement of patent costs, or (vi) proceeds from private or governments research grants to LICENSEE.

3.4.2 LICENSEE shall pay to UNIVERSITY [***] percent ([***]%) of royalty payments LICENSEE receives from each sublicensee; *provided*, *however*, that in no event shall the royalty rate paid by LICENSEE to UNIVERSITY be less than [***] percent ([***]%) of NET SALES of LICENSED PRODUCTS sold by each sublicensee and no greater than [***] percent ([***]%) of NET SALES of LICENSED PRODUCTS sold by each sublicensee. LICENSEE shall pay to UNIVERSITY said royalties on the LICENSED PRODUCTS concurrently with the making of quarterly written reports as provided in Section 4.1 below. LICENSEE may request that UNIVERSITY accept a royalty rate less than one-half percent (0.5%) of NET SALES of LICENSED PRODUCTS sold by a sublicensee, provided that LICENSEE submits financial details that justify such request; such request shall be denied or accepted at UNIVERSITY's sole discretion. In the event that the definition of "net sales" agreed to between LICENSEE and one of its sublicensees differs from the definition of NET SALES herein, the parties shall execute a consent letter memorializing such net sales definition between LICENSEE and such sublicensee and providing that such definition shall be used for purposes of the calculation set forth in this Section 3.4.2.

3.5 All fees, royalties, and other payments due to UNIVERSITY under this LICENSE AGREEMENT shall be made in United States Dollars.

3.6 In the event royalty payments or fees are not received by UNIVERSITY when due, LICENSEE shall pay to UNIVERSITY interest and charges at the Prime Rate of interest as reported in the Eastern edition of The Wall Street Journal on the date the payment is due plus two percent (2.0%) on the total royalties or fees due.

3.7 In the event of default in payment of any payment owing to UNIVERSITY under the terms of this LICENSE AGREEMENT, and if it becomes necessary for UNIVERSITY to undertake legal action to collect said payment, LICENSEE shall pay all legal fees and costs incurred by UNIVERSITY in connection therewith.

3.8 In the events that (i) LICENSEE, after diligent efforts, finally determines any royalties payments due on NET SALES of LICENSED PRODUCTS or any other payments due to LICENSEE pursuant to Section 3.4.1 or 3.4.2 to be uncollectible ("UNCOLLECTIBLE SALES"), and (ii) LICENSEE terminates the corresponding sublicense agreement pursuant to Section 6.4; any corresponding unpaid royalty and/or other unpaid payments on such UNCOLLECTIBLE SALES owed to the UNIVERSITY shall be forgiven, if not paid or, if previously paid to UNIVERSITY by LICENSEE, shall be credited against future royalties and payments which may become due to UNIVERSITY under this LICENSE AGREEMENT.

ARTICLE 4

REPORTS AND RECORDS

4.1 LICENSEE shall submit to UNIVERSITY a report semi-annually on or before January 15th and July 15th of each year after the EFFECTIVE DATE and such reports shall include an updated business plan with a detailed summary describing LICENSEE'S technical and other efforts made towards commercialization of LICENSED PRODUCTS in each LICENSED FIELD under development. Representatives from LICENSEE and UNIVERSITY will meet annually before January 30th of each year subsequent to the year 2005 to discuss and review LICENSEE's most recent business plan.

4.2 Subsequent to the first commercial sale of LICENSED PRODUCTS, LICENSEE agrees to make quarterly written reports to UNIVERSITY within ninety (90) days after the first days of each January, April, July, and October during the life of this LICENSE AGREEMENT and as of such dates, stating in each such report the number, description, and aggregate selling prices of LICENSED PRODUCTS sold or otherwise disposed of during the preceding three calendar months and upon which royalty is payable as provided in Sections 3.3 and 3.5 hereof. The first such report shall include all such LICENSED PRODUCTS so sold or otherwise disposed of prior to the date of such report. LICENSEE agrees to provide, in the reports under this section a good faith estimate of the allocation of royalties attributable to each patent within the PATENT RIGHTS.

4.3 LICENSEE will keep complete, true and accurate books of account and records for the purpose of showing the derivation of all amounts payable to UNIVERSITY under this LICENSE AGREEMENT. Such books and records will be kept at LICENSEE's principal place of business for at least three (3) years following the end of the calendar quarter to which they pertain, and will be open at all reasonable times for inspection by a representative of UNIVERSITY solely for the purpose of verifying LICENSEE's royalty statements or LICENSEE's compliance in other respects with this LICENSE AGREEMENT. The representative will be obliged to treat as confidential all relevant matters.

4.4 Inspections made under Section 4.3 shall be at the expense of UNIVERSITY, unless a variation or error in the calculation of NET SALES of LICENSED PRODUCTS or other fees, payments or royalties received by LICENSEE from sublicensees pursuant to Section 3.4.1 or 3.4.2 which form the basis for calculation of the royalties and other payments due to UNIVERSITY equal to or greater than one percent (1.0%) is discovered in the course of any such inspection, whereupon all costs relating thereto shall be paid by LICENSEE.

4.5 LICENSEE will promptly pay to UNIVERSITY the full amount of any underpayment, together with interest thereon at the Prime Rate of interest as reported in the Eastern edition of The Wall Street Journal on the date the payment is due plus two percent (2%).

ARTICLE 5

DUE DILIGENCE

5.1 LICENSEE shall use its best efforts and due diligence, taking into account the financial condition of LICENSEE and general business and market conditions, to proceed earnestly and assiduously with the research, development and commercialization, including manufacture and sale, of LICENSED PRODUCTS in each LICENSED FIELD during the period of this LICENSE AGREEMENT.

5.2 In particular, LICENSEE will use its best efforts, taking into account the financial condition of LICENSEE and general business and market conditions, to meet all obligations under the performance milestones set forth in **Exhibit B**, which is attached hereto. Substantial variations of **Exhibit B** must be expressly approved by UNIVERSITY in writing, such approval not to be unreasonably withheld. Any efforts and activities undertaken by LICENSEE's AFFILIATES or sublicensees will be treated as LICENSEE's efforts and activities for purposes of determining LICENSEE's compliance with the terms of this Article 5.

5.3 If LICENSEE fails to meet or achieve any of Milestones C through P set forth in **Exhibit B**, then UNIVERSITY shall be entitled to revise the LICENSE AGREEMENT to exclude a SPECIFIC LICENSED FIELD from the then-existing LICENSED FIELD; *provided*, *however*, that LICENSEE, in its sole discretion, shall have the right to designate which SPECIFIC LICENSED FIELD shall be excluded from this LICENSE AGREEMENT. LICENSEE shall designate the SPECIFIC LICENSED FIELD to be so excluded by written documentation to UNIVERSITY within 30 days of notice from UNIVERSITY of LICENSEE's failure to meet or achieve any Milestone C through P (the "DESIGNATION PERIOD"). In the event that LICENSEE fails to designate the SPECIFIC LICENSED FIELD prior to the expiration of the DESIGNATION PERIOD, then UNIVERSITY, at its sole discretion, shall be entitled to select the SPECIFIC LICENSED FIELD to be excluded from the then-existing LICENSED FIELD; *provided*, *however*, that UNIVERSITY shall not exclude from this LICENSE AGREEMENT any SPECIFIED LICENSED FIELD for which LICENSEE has previously provided a detailed commercialization plan or in which LICENSEE or its sublicensees or AFFILIATES have made a commercial sale of LICENSED PRODUCT. In such event, UNIVERSITY shall select the SPECIFIC LICENSED FIELD to be excluded and the LICENSE AGREEMENT shall be amended by UNIVERSITY to reflect any the exclusion of such SPECIFIC LICENSED FIELD from this LICENSE AGREEMENT within thirty (30) days of the expiration of the DESIGNATION PERIOD.

5.4 The milestones set forth in **Exhibit B** shall be delayed upon, and to the extent of the amount of time necessary to correct or adjust for, the occurrence of events beyond the reasonable control of LICENSEE, if such events have a direct negative and material impact on the ability of LICENSEE or LICENSEE's AFFILIATES to achieve the respective milestone despite LICENSEE's best efforts, taking into account the financial condition of LICENSEE and general business and market conditions, to overcome such events.

ARTICLE 6

SUBLICENSING

6.1 LICENSEE may sublicense any or all of the rights licensed hereunder, excluding the right to sublicense further unless prior written consent has been received by LICENSEE from UNIVERSITY, provided that LICENSEE notifies UNIVERSITY in writing and provides UNIVERSITY with a copy of each sublicense agreement and each amendment thereto within thirty (30) days after their execution.

6.2 If LICENSEE receives any non-cash consideration from a sublicensee in lieu of cash payments for any sublicense under this LICENSE AGREEMENT, LICENSEE shall use good faith efforts to establish the fair market value of such consideration and pay to UNIVERSITY royalties on such consideration within thirty (30) days of receipt of each such non-cash consideration.

6.3 LICENSEE shall require that all sublicense agreements be consistent with the terms, conditions and limitations of the licenses granted to LICENSEE under this LICENSE AGREEMENT. In addition, LICENSEE'S sublicense agreements shall (i) require sublicensee to meet due diligence milestones, if any such milestones are specifically applicable to sublicensees, pursuant to Article 5, (ii) exclude the right of sublicensees to sublicense further pursuant to Section 6.1, absent UNIVERSITY's prior written consent, (iii) include the sublicensee's acknowledgment of the disclaimer of warranty and limitation on UNIVERSITY's liability, pursuant to Article 10, and (iv) stipulate that any LICENSED PRODUCTS used or sold in the United States shall be substantially manufactured in the United States if and as required by 35 U.S.C. § 204, as specified in Section 12.6. Notwithstanding anything to the contrary contained in this Section 6.3, the requirements of the foregoing clauses (i) through (iv) shall not apply in the case of any trial or similar sublicense granted by LICENSEE solely for the purpose of determining the suitability of any INVENTIONS for a potential development, manufacturing commercialization or other business relationship. For avoidance of doubt, the granting of any such trial or similar sublicense in and of itself does not constitute an election to negotiate under Section 6.7.

6.4 Upon execution of each sublicense agreement, LICENSEE agrees to use its commercially reasonable efforts to enforce each sublicensee's compliance with each such sublicense agreement, and LICENSEE shall terminate any sublicense agreement if the sublicensee is in material breach of the sublicense agreement and fails to cure such breach within sixty (60) days of LICENSEE's discovery of such breach. Material breach by a sublicense shall include, but not be limited to, (i) failure to submit to LICENSEE an accurate report of NET SALES and (ii) failure to pay LICENSEE amounts due and owed under the sublicense agreement on the dates such payments are due.

6.5 Any sublicense granted in accordance with this LICENSE AGREEMENT prior to termination or expiration of this LICENSE AGREEMENT shall survive any such termination or expiration. LICENSEE shall cause every sublicense agreement to provide LICENSEE the right to assign its rights under the sublicense to UNIVERSITY in the event that this LICENSE

AGREEMENT terminates, which assignment shall be accepted by UNIVERSITY in writing within thirty (30) days of each such assignment.

6.6 After the second anniversary of the EFFECTIVE DATE either party shall inform the other within ten (10) days of a request for a sublicense to develop a LICENSED PRODUCT in a LICENSED FIELD covered by the PATENT RIGHTS ("PROPOSED PRODUCT") made by a third party ("PROSPECTIVE SUBLICENSEE"). If LICENSEE is not then developing, producing, or using a LICENSED PRODUCT in the same LICENSED FIELD as the PROPOSED PRODUCT, and the development or sublicensing of such a LICENSED PRODUCT is not within LICENSEE 's business plans or activities, LICENSEE shall elect one of the following options within sixty (60) days of receipt of notice from UNIVERSITY that they desire LICENSEE to negotiate with the PROSPECTIVE SUBLICENSEE for the purpose of granting a sublicense under the PATENT RIGHTS to develop and commercialize the PROPOSED PRODUCT:

(a) provide UNIVERSITY with written notice, in the form of a reasonable business development plan, that LICENSEE (i) has initiated a development program to commercialize the PROPOSED PRODUCT, or (ii) intends to initiate a development program within eighteen (18) months of the date of said written notice.

(b) begin good faith negotiations with the PROSPECTIVE SUBLICENSEE; or

(c) grant back to UNIVERSITY their rights to the PATENT RIGHTS under this LICENSE AGREEMENT in the LICENSED FIELD in which such PROPOSED PRODUCT would infringe the PATENT RIGHTS.

6.7 If LICENSEE elects to negotiate with the PROSPECTIVE SUBLICENSEE for a sublicense to develop and commercialize the PROPOSED PRODUCT as provided for in Section 6.6(b), LICENSEE shall make a good faith effort to complete negotiations with the PROSPECTIVE SUBLICENSEE within one hundred and eighty (180) days from the date on which it began negotiations. This one hundred and eighty (180) day period may be extended by UNIVERSITY upon documentation provided to UNIVERSITY by LICENSEE that such extension is reasonable in view of the circumstances. For the purposes of this Section, LICENSEE will have made a good faith effort to complete negotiations if it has offered a sublicense to the PROSPECTIVE SUBLICENSEE the terms of which include (i) reasonable financial terms taking into account the field in which the sublicense is being offered and LICENSEE's obligations to UNIVERSITY pursuant to this LICENSE AGREEMENT; (ii) minimum performance requirements which would not be unreasonably burdensome upon the PROSPECTIVE SUBLICENSEE; and (iii) non-financial terms which are consistent with LICENSEE 's obligations to UNIVERSITY pursuant to this LICENSE AGREEMENT. In the event that LICENSEE shall fail to make a good faith effort as required by this Section, LICENSEE shall immediately grant back to UNIVERSITY their rights under this LICENSE AGREEMENT to such PROPOSED PRODUCT and such failure by LICENSEE shall not constitute a breach for which this LICENSE AGREEMENT may be terminated as provided for in Article 7; *provided, however*, that if after LICENSEE's good faith efforts to negotiate such sublicense, LICENSEE and PROSPECTIVE

SUBLICENSEE nevertheless fail to consummate any sublicensing transaction, LICENSEE shall retain all UNIVERSITY PATENT RIGHTS and UNIVERSITY TECHNOLOGY to such PROPOSED PRODUCT and shall not be deemed to have breached the LICENSE AGREEMENT.

6.8 Notwithstanding anything to the contrary contained in Article 3 and Article 6 of the AGREEMENT and without altering the license and sublicense rights granted in Article 2, the parties agree that Section 3.4 and Article 6 shall not apply to sublicenses relating to research and/or development activities including any sublicense related to, for example, the transfer of materials (including samples), research, testing, teaching, or development purposes ("RESEARCH AND DEVELOPMENT ACTIVITIES").

ARTICLE 7

TERM AND TERMINATION

7.1 The term of this LICENSE AGREEMENT shall commence on the EFFECTIVE DATE and, unless terminated sooner as herein provided, shall expire (i) upon expiration of the last to expire patent included in the PATENT RIGHTS, or (ii) if no patents mature from said PATENT RIGHTS, twenty (20) years from the EFFECTIVE DATE.

7.2 It is expressly agreed that, notwithstanding the provisions of any other paragraph of this LICENSE AGREEMENT, if LICENSEE should materially breach this LICENSE AGREEMENT and fail to cure any such breach within thirty (30) days of receipt of written notice from UNIVERSITY describing such breach, then this LICENSE AGREEMENT shall automatically terminate. A material breach is a violation of or failure to keep or perform any material covenant, condition, or undertaking of this LICENSE AGREEMENT, including, but not limited to, (i) the failure to deliver to UNIVERSITY any royalty or other payment at the time or times that the same should be due to UNIVERSITY under this LICENSE AGREEMENT, (ii) failure to use best efforts, taking into account the financial condition of LICENSEE and general business and market conditions, as required in this LICENSE AGREEMENT, (iii) failure to provide reports as specified in Section 4.1, (iv) failure to meet or achieve milestones A and B, set forth in **Exhibit B** and pursuant to Article 5, (v) failure of any executed sublicense to comport with Section 6.3 and 6.7, and (vi) failure to possess and maintain insurance as set forth in Section 11.3.

7.3 If LICENSEE is adjudged bankrupt or insolvent, files a petition for bankruptcy, is the subject of a petition for bankruptcy which is not dismissed within sixty (60) days, or is placed in the hands of a receiver, assignee, or trustee for the benefit of creditors, whether by the voluntary act of LICENSEE or otherwise, then this LICENSE AGREEMENT shall automatically terminate, inasmuch as permitted under applicable and prevailing law.

7.4 LICENSEE may terminate this LICENSE AGREEMENT at any time upon giving written notice of not less than sixty (60) days to UNIVERSITY.

7.5 Upon cancellation of this LICENSE AGREEMENT or upon termination in whole or in part, LICENSEE shall provide UNIVERSITY with a written inventory of all UNIVERSITY TECHNOLOGY and LICENSED PRODUCTS in the process of manufacture, in use or in stock. Except with respect to termination pursuant to Section 7.2, LICENSEE shall have the privilege of disposing of the inventory of such LICENSED PRODUCTS within a period of one hundred and eighty (180) days of such termination, and shall pay to UNIVERSITY [***] percent ([***]%) of NET SALES of such LICENSED PRODUCTS within thirty (30) days of such sale. LICENSEE will also have the right to complete performance of all contracts for the sale of LICENSED PRODUCTS by LICENSEE requiring use of UNIVERSITY TECHNOLOGY, PATENT RIGHTS (except in the case of termination pursuant to Section 7.2) or LICENSED PRODUCTS within and beyond said period of one hundred and eighty (180) days provided that the remaining term of any such contract does not exceed one year. All LICENSED PRODUCTS which are not disposed of as provided above shall be delivered to UNIVERSITY or otherwise disposed of, in UNIVERSITY's sole discretion, and at LICENSEE's sole expense.

7.6 Upon expiration of the term pursuant to Section 7.1, LICENSEE shall have a non-exclusive, irrevocable, perpetual, worldwide, fully-paid license, with the right to sublicense through multiple tiers of sublicenses, to use and practice the UNIVERSITY TECHNOLOGY for any purpose in any field.

7.7 Any termination or cancellation under any provision of this LICENSE AGREEMENT shall not relieve LICENSEE of its obligation to pay any royalty or other fees (including attorney's fees pursuant to Section 3.1 hereof) due or owing at the time of such termination or cancellation.

ARTICLE 8

PATENT PROSECUTION AND MAINTENANCE

8.1 Pursuant to Section 3.1, LICENSEE shall bear the cost of all patent expenses, past and future, associated with the preparation, filing, prosecution, issuance and maintenance of U.S. Patent applications and U.S. Patents included within the PATENT RIGHTS. Such filings and prosecution shall be by counsel of UNIVERSITY's choosing and shall be in the name of UNIVERSITY or UNIVERSITY and joint owner if jointly owned. UNIVERSITY shall keep LICENSEE advised as to the prosecution of such applications by forwarding to LICENSEE copies of all official correspondence, (including, but not limited to, applications, office actions, responses, etc.) relating thereto. LICENSEE shall have the first right to request filings, prosecute, and maintain patent applications and patents included within the PATENT RIGHTS, however, all such action instructed by LICENSEE shall be requested of UNIVERSITY and, UNIVERSITY shall (i) have a right to make comments thereto, and (ii) timely instruct its counsel to act in accord with LICENSEE's instructions. In the event of a disagreement between LICENSEE and UNIVERSITY regarding such prosecution or maintenance, UNIVERSITY shall have the right to make the final decisions for all matters associated with such prosecution and maintenance, however, UNIVERSITY shall be responsible for any and all costs associated with prosecution and maintenance matters in which UNIVERSITY made a final determination pursuant to this section. In order to facilitate LICENSEE's rights to comment and advise

UNIVERSITY, UNIVERSITY will provide, to the extent that it is able, copies of all such official correspondence and any proposed responses by UNIVERSITY at least twenty (20) business days prior to any filing or response deadlines. UNIVERSITY shall diligently prosecute such patent applications included within the Patent Rights and shall seek strong and broad claims under the Patent Rights. UNIVERSITY shall not abandon prosecution or maintenance of any Patent Rights without notifying LICENSEE in a timely manner of UNIVERSITY's intention and reason therefore and providing LICENSEE with reasonable opportunity to comment upon such abandonment and to assume responsibility for prosecution or maintenance of such Patent Rights.

8.2 As regards prosecution and maintenance of foreign patent applications corresponding to the U.S. Patent applications described in Section 8.1 above, LICENSEE shall designate in writing that country or those countries, if any, in which LICENSEE desires such corresponding patent application(s) to be filed. LICENSEE shall pay all costs and legal fees associated with the preparation, filing, prosecuting, issuance and maintenance of such designated foreign patent applications and foreign patents. All such applications shall be in the name of UNIVERSITY or UNIVERSITY and joint owner if jointly owned.

8.3 By written notification to UNIVERSITY at least thirty (30) days in advance of any filing or response deadline, or fee due date, LICENSEE may elect not to have a patent application filed in any particular country which it had previously designated pursuant to Section 8.2 or not to pay expenses associated with prosecuting or maintaining any patent application or patent, provided that LICENSEE pays for all costs incurred up to UNIVERSITY's receipt of such notification. FAILURE TO PROVIDE SUCH NOTIFICATION WILL BE CONSIDERED BY UNIVERSITY TO BE LICENSEE'S NOTICE THAT IT NO LONGER WISHES TO SUPPORT ANY PARTICULAR PATENT(S) OR PATENT APPLICATION(S). Upon such notice, UNIVERSITY may file, prosecute, and/or maintain such patent applications or patents at their own expense and for their own benefit, and any rights or license granted hereunder held by LICENSEE, AFFILIATE or sublicensee(s) relating to the PATENT RIGHTS which comprise the subject of such patent applications or patent and/or apply to the particular country, shall terminate.

8.4 UNIVERSITY may elect to file corresponding patent applications in countries other than those designated by LICENSEE, but in that event UNIVERSITY shall be responsible for all costs associated with such non-designated filings. In such event, LICENSEE shall forfeit its rights under this LICENSE AGREEMENT in the country(ies) where UNIVERSITY exercise their option to file such corresponding patent applications.

ARTICLE 9

INFRINGEMENT

9.1 If the production, sale or use of LICENSED PRODUCTS under this LICENSE AGREEMENT by LICENSEE results in any claim for patent infringement against LICENSEE, LICENSEE shall promptly notify UNIVERSITY thereof in writing, setting forth the facts of such claim in reasonable detail. As between the parties to this LICENSE AGREEMENT, LICENSEE shall have the first and primary right and responsibility, at its own expense, to

defend and control the defense of any such claim against LICENSEE, by counsel of its own choice. It is understood that any settlement, consent judgment or other voluntary disposition of such actions must be approved by UNIVERSITY, such approval not being unreasonably withheld. Subject to the policies of the Board of Governors of UNIVERSITY, UNIVERSITY agrees to cooperate with LICENSEE in any reasonable manner deemed by LICENSEE to be necessary in defending any such action. LICENSEE shall reimburse UNIVERSITY for any out of pocket expenses incurred in providing such assistance.

9.2 In the event that any PATENT RIGHTS licensed to LICENSEE are infringed by a third party or there is misappropriation of any UNIVERSITY TECHNOLOGY by a third party, LICENSEE shall have the primary right, but not the obligation, to institute, prosecute and control any action or proceeding with respect to such infringement or misappropriation, by counsel of its choice, including any declaratory judgment action arising from such infringement or misappropriation. It is understood that any settlement, consent judgment or other voluntary disposition of such actions must be approved by UNIVERSITY, such approval not to be unreasonably withheld. If LICENSEE recovers monetary damages from a third party, then LICENSEE shall first be reimbursed for all un-reimbursed expenses and costs incurred by LICENSEE in connection with the prosecution of such action or proceeding and then shall pay to UNIVERSITY thirty percent (30%) of the balance of such recovered monetary damages.

9.3 If LICENSEE elects not to enforce any patent within the PATENT RIGHTS, then LICENSEE shall notify UNIVERSITY in writing within sixty (60) days of receiving notice that an infringement exists. UNIVERSITY may, at their own expense and control, take steps to defend or enforce any patent within the PATENT RIGHTS and recover, for their own account, any damages, awards or settlements resulting therefrom.

9.4 Notwithstanding the foregoing, and in UNIVERSITY's sole discretion, UNIVERSITY shall be entitled to participate through counsel of their own choosing in any legal action involving the INVENTIONS and PATENT RIGHTS. Nothing in the foregoing sections shall be construed in any way which would limit the authority of the Attorney General of North Carolina.

ARTICLE 10

REPRESENTATIONS

10.1 UNIVERSITY makes no warranties that any patent will issue on UNIVERSITY TECHNOLOGY or INVENTIONS. UNIVERSITY does not warrant the validity of any patent included in the PATENT RIGHTS or that practice under such patents shall be free of infringement.

10.2 UNIVERSITY represents and warrants to LICENSEE that (i) except for licenses granted to the United States Government, UNIVERSITY has not granted any third party any rights or licenses with respect to the PATENT RIGHTS; (ii) the grant of the licenses under this LICENSE AGREEMENT does not conflict with any agreement to which UNIVERSITY is a party; (iii) UNIVERSITY has not received any written charge, complaint, claim, demand or

notice alleging that the development and/or use of the PATENT RIGHTS or the UNIVERSITY TECHNOLOGY infringes or misappropriates the rights of any third party; (iv) no litigation is pending or threatened which contests the right of UNIVERSITY to grant the licenses to LICENSEE under this LICENSE AGREEMENT; and (v) to the best of its knowledge, UNIVERSITY is the exclusive owner of the PATENT RIGHTS and the UNIVERSITY TECHNOLOGY or has the exclusive right to license the PATENT RIGHTS and the UNIVERISITY TECHNOLOGY herein granted in this LICENSE AGREEMENT.

10.3 OTHER THAN AS EXPRESSLY SET FORTH HEREIN, UNIVERSITY DISCLAIMS ALL WARRANTIES WITH REGARD TO PRODUCT(S) AND SERVICE(S) LICENSED UNDER THIS AGREEMENT, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, UNIVERSITY ADDITIONALLY DISCLAIMS ALL OBLIGATIONS AND LIABILITIES ON THE PART OF UNIVERSITY AND INVENTORS, FOR DAMAGES, INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, SPECIAL, AND CONSEQUENTIAL DAMAGES, ATTORNEYS' AND EXPERTS' FEES, AND COURT COSTS (EVEN IF UNIVERSITY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, FEES OR COSTS), ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, USE, OR SALE OF THE PRODUCT(S) AND SERVICE(S) LICENSED UNDER THIS AGREEMENT. LICENSEE ASSUMES ALL RESPONSIBILITY AND LIABILITY ON BEHALF OF ITSELF, ITS AFFILIATE(S) AND ITS SUBLICENSEE(S) FOR LOSS OR DAMAGE CAUSED BY A PRODUCT AND/OR SERVICE MANUFACTURED, USED, OR SOLD BY LICENSEE, ITS SUBLICENSEE(S) AND AFFILIATE(S) WHICH IS A LICENSED PRODUCT(S) AS DEFINED IN THIS AGREEMENT.

ARTICLE 11

INDEMNIFICATION

11.1 In exercising its rights under this LICENSE AGREEMENT, LICENSEE shall fully comply with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having jurisdiction over the exercise of rights under this LICENSE AGREEMENT. LICENSEE further agrees to indemnify and hold UNIVERSITY harmless from and against any costs, expenses, attorney's fees, citation, fine, penalty and liability of every kind and nature which might be imposed by reason of any asserted or established violation of any such laws, order, rules and/or regulations and not resulting from the negligence or willful misconduct of UNIVERSITY.

11.2 LICENSEE agrees to indemnify, hold harmless and defend UNIVERSITY, its officers, employees, and agents, against any and all claims, suits, losses, damage, costs, fees, and expenses (excluding any such claims, suits, losses, damage, costs, fees or expenses resulting from the negligence or willful misconduct of UNIVERSITY) asserted by third parties, both government and private, resulting from or arising out of (a) the exercise of this LICENSE AGREEMENT by LICENSEE, AFFILIATES, or sublicensees of either of the foregoing, (b) any such sublicensee's use of the PATENT RIGHTS or UNIVERSITY TECHNOLOGY, or (c) any

LICENSED PRODUCTS made by LICENSEE, AFFILIATES, or sublicensees of either of the foregoing.

11.3 LICENSEE is required to maintain in force at its sole cost and expense, with reputable insurance companies, general liability insurance and products liability insurance coverage in an amount reasonably sufficient to protect against liability under Sections 11.1 and 11.2 above. UNIVERSITY shall have the right to ascertain from time to time that such coverage exists, such right to be exercised in a reasonable manner.

11.4 LICENSEE agrees to indemnify, hold harmless, and defend UNIVERSITY, its officers, employees, and agents against any and all claims, suits, losses, damage, costs, fees, and expenses asserted by third parties, both government and private, resulting from or arising out of the exercise of RESEARCH AND DEVELOPMENT ACTIVITIES under Section 6.8, excluding any such claims, suits, losses, damage, costs, fees, or expenses resulting from the negligence or willful misconduct of UNIVERSITY.

ARTICLE 12

MISCELLANEOUS

12.1 Confidentiality. LICENSEE shall keep confidential and not disclose any unpublished UNIVERSITY TECHNOLOGY or any patent applications furnished by UNIVERSITY prior to the EFFECTIVE DATE or pursuant to Sections 2.1 and 2.2 to third parties (other than employees, consultants, advisors, collaborators, prospective sublicensees, investors or prospective investors in the LICENSEE's equity securities, all under obligations of confidentiality) during the term of this LICENSE AGREEMENT or any time thereafter. Disclosure may be made to third parties of any such UNIVERSITY TECHNOLOGY or document related to or embodying PATENT RIGHTS at any time (a) with the prior written consent of UNIVERSITY or (b) after the same shall have become public through no fault of LICENSEE. Notwithstanding anything to the contrary contained in this Section 12.1, LICENSEE shall have the right to incorporate UNIVERSITY TECHNOLOGY that has been included in any filed patent application into patent applications filed by or on behalf of LICENSEE for the purpose of supporting claims in such patent applications that cover inventions to which LICENSEE holds an ownership interest.

In connection with this LICENSE AGREEMENT, LICENSEE may communicate and deliver to UNIVERSITY certain confidential or proprietary information of LICENSEE, its AFFILIATES or sublicensees, including, without limitation, certain scientific and manufacturing information and plans, marketing and business plans, financial statements, and audit reports (collectively, "LICENSEE CONFIDENTIAL INFORMATION"). During the term of this LICENSE AGREEMENT and for a period of five (5) years thereafter, UNIVERSITY shall keep confidential and shall not disclose any LICENSEE CONFIDENTIAL INFORMATION to any third party, and shall not use any LICENSEE CONFIDENTIAL INFORMATION for any purpose except for the purposes contemplated by this LICENSE AGREEMENT. Notwithstanding the foregoing, the UNIVERSITY may disclose LICENSEE CONFIDENTIAL INFORMATION to the extent that such disclosure is made in response to a valid order of a court

of competent jurisdiction or other governmental or regulatory body of competent jurisdiction or is required to comply with the Public Disclosure Act or any other applicable law or regulation; provided, however, that the UNIVERSITY will first have given notice to LICENSEE and given the LICENSEE a reasonable opportunity to quash such order and to obtain a protective order requiring that the LICENSEE CONFIDENTIAL INFORMATION and documents that are the subject of such required disclosure be held in confidence by the applicable court or governmental or regulatory body or, if disclosed, be used only for the purposes for which the order was issued or as otherwise authorized by law; and provided, further that if a disclosure order is not quashed or a protective order is not obtained, the LICENSEE CONFIDENTIAL INFORMATION disclosed in response to such court, governmental order, law or regulation will be limited to that information which is legally required to be disclosed.

12.2 Assignability. This LICENSE AGREEMENT is binding upon and shall inure to the benefit of the UNIVERSITY, their successors and assigns. However, this LICENSE AGREEMENT shall be personal to LICENSEE, and it is not assignable by LICENSEE to any other person or entity without the written consent of UNIVERSITY, which consent shall not be unreasonably withheld; *provided, however*, that LICENSEE shall be free to assign this LICENSE AGREEMENT without the consent of the UNIVERSITY to an AFFILIATE or in connection with any sale of substantially all of

its capital stock or of all of its assets to which this LICENSE AGREEMENT relates. In the event of such assignment without consent of UNIVERSITY, LICENSEE agrees to provide reasonable notice to UNIVERSITY prior to any assignment of this LICENSE AGREEMENT.

12.3 Waiver. It is agreed that no waiver by either party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

12.4 Use of UNIVERSITY's Name. Other than disclosure of the existence and terms of this LICENSE AGREEMENT by LICENSEE in the ordinary course of business, including without limitation, disclosure to prospective sublicensees, investors, prospective investors, lenders, collaborators and strategic partners, the use of the name of UNIVERSITY, CALTECH, or NCSU or any contractions thereof, in any manner in connection with the exercise of this LICENSE AGREEMENT is expressly prohibited without the prior written consent of UNIVERSITY.

12.5 Independent Contractor Status. Neither party hereto is an agent of the other for any purpose

12.6 U.S. Manufacture. It is agreed, if and as required by 35 U.S.C. § 204, that any LICENSED PRODUCTS used or sold in the United States shall be substantially manufactured in the United States

12.7 Required Transfer. UNIVERSITY and LICENSEE agree that LICENSEE shall supply materials to UNIVERSITY for their research in accordance with this Agreement upon prior written agreement.

12.8 Notice. Any notice required or permitted to be given to the parties hereto shall be in writing and deemed to have been properly given if delivered in person or mailed by first-class mail to the other parties at the appropriate address as set forth below. Other addresses may be designated in writing by the parties during the term of this LICENSE AGREEMENT.

UNIVERSITY

Director
Office of Technology Development
CB #4105, 308 Bynum Hall
Univeristy of North Carolina at Chapel Hill
Chapel Hill, NC 27599-4105

LICENSEE

Liquidia Technologies, Inc.

Mailing Address:
P.O. Box 110085
RTP, NC 27709

Shipping Address:
419 Davis Drive, Suite 100
Durham, NC 27713

12.9 Governing Law and Venue. This LICENSE AGREEMENT shall be interpreted and construed in accordance with the laws of the State of North Carolina. The State and Federal Courts of North Carolina shall have exclusive jurisdiction to hear any legal action arising out of this LICENSE AGREEMENT.

12.10 Complete Agreement. It is understood and agreed between UNIVERSITY and LICENSEE that this LICENSE AGREEMENT constitutes the entire agreement, both written and oral, between the parties, and that all prior agreements respecting the subject matter hereof, either written or oral, expressed or implied, shall be abrogated, canceled, and are null and void and of no effect, including each ORIGINAL LICENSE AGREEMENT.

12.11 Severability. In the event that a court of competent jurisdiction holds any provision of this LICENSE AGREEMENT to be invalid, such holding shall have no effect on the remaining provisions of this LICENSE AGREEMENT, and they shall continue in full force and effect.

12.12 Survival of Terms. The provisions of Sections 3.6, 3.7, 4.3, 4.4, 4.5, 6.5, 7.4, 7.5, 7.6, 7.7, 12.1, 12.4, 12.8, 12.9, 12.10, and 12.12 and Articles 10 and 11 shall survive the expiration or termination of this LICENSE AGREEMENT.

IN WITNESS WHEREOF, UNIVERSITY and LICENSEE have executed this LICENSE AGREEMENT, in duplicate originals, by the duly authorized respective officers.

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

/s/ Catherine Innes

LICENSEE

/s/ Bruce W. Boucher

Signature	Signature
Catherine Innes	Bruce W. Boucher
Printed Name	Printed Name
Director, Office of Technology Development	President
Title	Title
12/16/08	12/16/08
Date	Date

Exhibit A

PATENT RIGHTS

UNC Ref. No.	JWT or AB Ref. No.	LIQ Ref. No.	Title	Country	App. No./Patent No.	Filing Date	Status
04-0013	421/117	64549-5001	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices	National	US 10/572,764 plus Foreign Counterparts filed in AU, CA, CN, EP, IN, JP, MX, SG	21/Mar/06	Pending
04-0067	421/96	64549-5003	Functional Materials and Novel Methods for the Fabrication of Microfluidic Devices	National	US 10/589,222 plus Foreign Counterparts filed in AU, CA, CN, EP, JP, SG	11/Aug/06	Pending
04-0067	421/96	64549-5003/01	Methods and Materials for Fabricating Microfluidic Devices	US	US 60/799,317 plus foreign counterparts filed in EP, CN	10/May/05	Pending
04-0104	421/90	64549-5002	Methods for Fabricating Isolated Micro-and Nanostructures Using Soft or Imprint Lithography	National	US 10/583,570 plus Foreign Counterparts filed in AU, BR, CA, CN, EP, IL, IN, JP, KR, MX, SG, ZA	19/Jun/06	Pending
04-0104	421/90	64549-5020	Nanoparticle Fabrication Methods, Systems, and Materials	National	US 11/921,614 plus foreign counterparts filed in JP, EP, BR, CN, CA, AU, IN, MX	19/Jun/06	Pending
04-0104	421/90	64549-5021	Materials and Methods for Fabricating Isolated Micro-and Nano- Structures Having Chemical Functionality	PCT	PCT/US06/034997	7/Sept/06	Expired
04-0104	421/90	64549-5023	Taggants and Methods and Systems for	National	US 12/162,264	29/Jan/07	Pending

			Fabricating Same				
04-0104	421/90	64549-5022	Isolated and Fixed Micro and Nano Structures and Methods thereof	US	US 11/594,023 plus foreign counterpart filed in EP	7/Nov/06	Pending
04-0104	421/90	64549-5033	Micro and Nano-Carriers For Biological Systems	PCT	PCT US2007/016935	27/Jul/07	Pending

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

05-0008	421/136	64549-5005	Low Surface Energy Polymeric Material for Use in Liquid Crystal Displays	National	US 11/883,304 plus foreign counterparts in JP, KR, CN, EP, SG,	3/Feb/06	Pending
07-0006	421/90/5	064549-5026	Micro and Nano-particles for Photovoltaics and Methods of Making the Same	National	US case filed 9/Nov/2008 plus foreign counterparts in EP, JP, KR, and CN	09/May/06	Pending
07-0014	421/189/PR OV	064549- 5009PR	New Materials Based on PFPE With Hydrophilic Components	US	US 60/836,633	09/Aug/06	Expired
07-0028	421/194 PCT	064549-5010	Nanoparticle Compositions for Controlled Delivery of Nucleic Acids	PCT	PCT/US07/21680	09/Oct/06	Pending
07-0044	421/187/2 PROV	064549-5002P15	Nano-Molding of Large Area, 2-D Array Photovoltaic Cells	US	US 60/857,669	07/Nov/06	Expired
07-0074	421/90/10 PCT	064549-5028W0	Discrete Size and Shape Specific Pharmaceutical Organic Nanoparticles	PCT	PCT/US2008/055109	27/Feb/07	Pending
07-0079	421/208 PCT	064549-5027W0	Discrete Size and Shape Specific Organic Nanoparticles Designed to Illicit an Immune Response	PCT	PCT/US2008/058022	23/Mar/07	Pending
07-0047	421/197 PCT	64549-5012/WO	Polymer Particle Composite Having High Fidelity Order, Size, and Shape Particles	PCT	PCT/US2007/023805	15/Nov/06	Pending
		64549-5038PR	Delivery Apparatus and Associated Method	PROV	US 61/031,083	25/Feb/08	Pending
		64549-5041PR	Compositions and Methods for Intracellular Delivery and Release of Cargo	PROV	61/047,980	25/Apr/08	Pending
08-0090	35052/3399 94	64549-5042PR	Degradable Compounds and Methods of Use Thereof. Particularly with Particle Replication in Non-Wetting Templates	PROV	US 61/048,032	25/Apr/08	Pending

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

		64549-5043PR	High Fidelity Through Hole Film, and Associated Method	PROV	US 61/075,103	24/Jun/08	Pending

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit B

MILESTONES

Capitalized terms set out in this Exhibit B shall be defined as provided in the LICENSE AGREEMENT.

Milestones A through B
Financing

A) LICENSEE shall obtain seed funding of at least fifty thousand dollars ($50,000.00) by March 1, 2005.

B) LICENSEE shall obtain cumulative equity financing of at least two million dollars ($2,000,000.00) by March 1, 2006 (the "TRIGGER FINANCING").

Milestones C through G
Commercialize any LICENSED PRODUCT(S) by Multiple Pathways

By the dates indicated below, LICENSEE shall submit a detailed plan for commercialization of a LICENSED PRODUCT which will be sold to or developed by a business entity (i) with which LICENSEE has not previously established a business relationship to develop and commercialize LICENSED PRODUCT(S) and/or (ii) to which LICENSEE has not previously sold a LICENSED PRODUCT ("NEW BUSINESS ENTITY"). The LICENSED PRODUCT(S) may be commercialized by LICENSEE, LICENSEE's customers, sublicensees, business partners or AFFILIATES. For the purposes of Milestones C through G, NEW BUSINESS ENTITY may mean a business division within a company with which LICENSEE has previously established a business relationship with the company, but not with the said business division.

C) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2007

D) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2008 with a NEW BUSINESS ENTITY.

E) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2009 with a NEW BUSINESS ENTITY.

F) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2010 with a NEW BUSINESS ENTITY.

G) Submit detailed plan for commercialization of LICENSED PRODUCT
By January 1, 2011 with a NEW BUSINESS ENTITY.

Milestones H through K
Commercialize LICENSED PRODUCT(S) in Multiple LICENSED FIELDS

By the dates indicated below, LICENSEE will submit a detailed plan for commercialization of a LICENSED PRODUCT in a new LICENSED FIELD. Such new LICENSED FIELD shall be distinctly different from LICENSED FIELDS in which LICENSED PRODUCTS have been or are in the process of being commercialized.

H) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2009 in new LICENSED FIELD.

I) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2011 in new LICENSED FIELD.

J) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2013 in new LICENSED FIELD.

K) Submit detailed plan for commercialization of LICENSED PRODUCT.
By January 1, 2015 in new LICENSED FIELD.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Milestones L through P
Commercial Sale of LICENSED PRODUCT(S) in any LICENSED FIELD

By the dates indicated below, LICENSEE, LICENSEE's AFFILIATE or LICENSEE's sublicensee shall make a COMMERCIAL SALE of a LICENSED PRODUCT; for each milestone listed below, such LICENSED PRODUCT may be in any LICENSED FIELD and shall be distinctly different from any previously commercialized LICENSED PRODUCTS.

L) Commercial sale of first LICENSED PRODUCT or execution of first license agreement for development & commercialization of such a LICENSED PRODUCT.
By January 1, 2009

M) Commercial sale of LICENSED PRODUCT which has not previously been commercialized, or execution of a license agreement for development & commercialization of such a LICENSED PRODUCT.
By January 1, 2012

N) Commercial sale of LICENSED PRODUCT which has not previously been commercialized.
By January 1, 2015.

O) Commercial sale of LICENSED PRODUCT which has not previously been commercialized.
By January 1, 2018.

P) Commercial sale of LICENSED PRODUCT which has not previously been commercialized.
By January 1, 2021.

As a point of clarification for Milestones C through K:

If by January 1, 2007, LICENSEE submits a plan for commercialization of a LICENSED PRODUCT in any SPECIFIC LICENSED FIELD, then Milestone C is met.

If by January 1, 2008, LICENSEE submits a second plan for commercialization of a LICENSED PRODUCT in a SPECIFIC LICENSED FIELD which is distinctly different from the SPECIFIC LICENSED FIELD covered in the previous submitted plan, then BOTH Milestone D and H arc met.

This holds true for similar situations relating to Milestones C through K.

FIRST AMENDMENT TO AMENDED AND RESTATED LICENSE AGREEMENT

FIRST AMENDMENT TO AMENDED AND RESTATED LICENSE AGREEMENT, ("Amendment") effective as of June 8, 2009 ("Effective Date"), by and between The University of North Carolina at Chapel Hill, having an address at 104 Airport Drive, CB# 1350, Chapel Hill, North Carolina 27599-1350, ("University"), and Liquidia Technologies, Inc, a corporation existing under the laws of Delaware, and having its principal headquarters at Suite 100, 419 Davis Drive, Durham, NC 27713 ("Licensee").

WITNESSETH:

WHEREAS, Licensee and University have entered into an Amended and Restated License Agreement dated as of December 15, 2008 ("Agreement"); and

WHEREAS; Licensee and University wish to amend the Agreement upon the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the promises and mutual covenants contained in the Agreement and herein, the parties hereto agree as follows:

1. Sections 3.4.1 and 3.4.2 of Section 3.4 of Article 3 are hereby amended and replaced in their entirety with the following new Sections 3.4.1 and 3.4.2:

3.4.1 In respect to sublicenses granted by LICENSEE under Article 6 below, LICENSEE shall pay to UNIVERSITY twenty percent (20%) of any fees, minimum royalties, and any consideration other than royalties that LICENSEE receives from each sublicensee for any rights granted under a sublicense agreement within thirty (30) days of receiving any such payments from each such sublicense. LICENSEE shall not be required to make such payment to UNIVERSITY on fees or other consideration received by LICENSEE from sublicensees as: (i) payment or reimbursement for research and development (including joint development) activities by LICENSEE in connection with LICENSED PRODUCTS or the INVENTIONS (provided that (a) LICENSEE provides to UNIVERSITY the statement of work, including, to the extent available, a reasonable budget, for each research and development program prior to engaging in each such research and development program and (b) any subsequent sale of such LICENSED PRODUCTS shall be subject to the royalty calculations herein); (ii) payment for LICENSEE services provided in connection with any sublicense provided that such services do not require use of INVENTIONS or UNIVERSITY TECHNOLOGY, (iii) a loan that is not convertible to shares of LICENSEE's stock and that bears market rate interest, (iv) the purchase of LICENSEE's equity

securities at fair market value, (v) reimbursement of patent costs, or (vi) proceeds from private or governments research grants to LICENSEE.

3.4.2 LICENSEE shall pay to UNIVERSITY [***] percent ([***]%) of royalty payments LICENSEE receives from each sublicensee; provided, however, that in no event shall the royalty rate paid by LICENSEE to UNIVERSITY be less than [***] percent ([***]%) of NET SALES of LICENSED PRODUCTS sold by each sublicensee and no greater than [***] percent ([***]%) of NET SALES of LICENSED PRODUCTS sold by each sublicensee. LICENSEE shall pay to UNIVERSITY said royalties on the LICENSED PRODUCTS concurrently with the making of quarterly written reports as provided in Section 4.1 below. LICENSEE may request that UNIVERSITY accept a royalty rate less than [***] percent ([***]%) of NET SALES of LICENSED PRODUCTS sold by a sublicensee, provided that LICENSEE submits financial details that justify such request; such request shall be denied or accepted at UNIVERSITY's sole discretion. In the event that the definition of "net sales" agreed to between LICENSEE and one of its sublicensees differs from the definition of NET SALES herein, the parties shall execute a consent letter memorializing such net sales definition between LICENSEE and such sublicensee and providing that such definition shall be used for purposes of the calculation set forth in this Section 3.4.2.

2. Article 5 shall be amended and replaced in its entirety with the following new Article 5.

5.1 LICENSEE will use commercially reasonable efforts, taking into account the financial condition of LICENSEE and general business and market conditions, to meet all obligations under the performance milestones set forth in Exhibit B, which is attached hereto. If LICENSEE is unable to satisfy the milestones set forth in Exhibit B, UNIVERSITY hereby agrees that:

(i) LICENSEE shall have one hundred and twenty (120) days from receiving notice from UNIVERSITY of LICENSEE's failure to meet or achieve a milestone to cure any such failure ("Cure Period"). Any efforts or activities undertaken by LICENSEE's AFFILIATES or sublicensees will be treated as LICENSEE's efforts and activities for purposes of determining LICENSEE's compliance with the terms of this Article 5.

(ii) During the 120 day Cure Period, UNIVERSITY and LICENSEE shall negotiate in good faith to revise the milestone(s) to reflect an appropriate milestone(s) at the time taking into account the financial condition of LICENSEE and general business and market conditions.

(iii) If LICENSEE is unable to cure a failure to satisfy a milestone set forth in Exhibit B under Section 5.1(i) and UNIVERSITY and

LICENSEE have not reached an agreement to revise such milestone under Section 5.1(ii) then UNIVERSITY shall have the right to elect to have LICENSEE and UNIVERSITY negotiate in good faith to have one SPECIFIC LICENSED FIELD excluded from this LICENSE AGREEMENT. In the event that LICENSEE and UNIVERSITY cannot agree on such SPECIFIC LICENSED FIELD to be excluded from this LICENSE AGREEMENT within ninety (90) days of UNIVERSITY'S notice of election to negotiate in good faith to have one SPECIFIC LICENSED FIELD excluded from this LICENSE AGREEMENT ("NEGOTIATION PERIOD") then LICENSEE shall designate the SPECIFIC LICENSED FIELD to be so excluded by written documentation to UNIVERSITY within thirty (30) days of the expiration of such NEGOTIATION PERIOD ("DESIGNATION PERIOD"). In the event that LICENSEE fails to designate the SPECIFIC LICENSED FIELD prior to the expiration of the DESIGNATION PERIOD, then UNIVERSITY, at its sole discretion, shall be entitled to select the SPECIFIC LICENSED FIELD to be excluded from the then-existing LICENSED FIELD; provided, however, that UNIVERSITY shall not exclude from this LICENSE AGREEMENT any SPECIFIED LICENSED FIELD for which LICENSEE has (a) previously provided a detailed commercialization plan, (b) executed a license, sublicense or other commercial agreement, including a license, sublicense or other commercial agreement with a subsidiary or new entity, or (c) in which LICENSEE or its sublicensees or AFFILIATES have made a commercial sale of LICENSED PRODUCT. In such event, UNIVERSITY shall select the SPECIFIC LICENSED FIELD to be excluded and the LICENSE AGREEMENT shall be amended to reflect any exclusion of such SPECIFIC LICENSED FIELD from this LICENSE AGREEMENT within thirty (30) days of the expiration of the DESIGNATION PERIOD.

3. Sections 6.1, 6.3, 6.4, and 6.5, are hereby amended and replaced in their entirety with the following new Sections 6.1, 6.3, 6.4, and 6.5a and 6.5b:

6.1 LICENSEE may sublicense any or all of the rights licensed hereunder, including the right to sublicense through multiple tiers of sublicenses, provided that LICENSEE notifies UNIVERSITY in writing and provides UNIVERSITY with a copy of each sublicense agreement and each amendment thereto within thirty (30) days after execution of each such license agreement and amendment.

6.3 LICENSEE shall require that all sublicense agreements be consistent with the terms, conditions and limitations of the licenses granted to LICENSEE under this LICENSE AGREEMENT. In addition, LICENSEE'S sublicense agreements shall (i) include the sublicensee's acknowledgment of the disclaimer of warranty and limitation on UNIVERSITY's liability, pursuant to Article 10, and (ii) stipulate

that any LICENSED PRODUCTS used or sold in the United States shall be substantially manufactured in the United States if and as required by 35 U.S.C. § 204, as specified in Section 12.6. Notwithstanding anything to the contrary contained in this Section 6.3, the requirements of the foregoing clauses (i) and (ii) shall not apply in the case of any trial or similar sublicense granted by LICENSEE solely for the purpose of determining the suitability of any INVENTIONS for a potential development, manufacturing commercialization or other business relationship.

6.4 Upon execution of each sublicense agreement, LICENSEE agrees to use its commercially reasonable efforts to enforce each sublicensee's compliance with each such sublicense agreement, and LICENSEE may terminate any sublicense agreement if the sublicensee is in material breach of the sublicense agreement and fails to cure such breach within sixty (60) days of LICENSEE's discovery of such breach. Material breach by a sublicense shall include, but not be limited to, (i) failure to submit to LICENSEE an accurate report of NET SALES and (ii) failure to pay LICENSEE amounts due and owed under the sublicense agreement on the dates such payments are due.

6.5.a Any sublicense granted in accordance with this LICENSE AGREEMENT prior to expiration of this LICENSE AGREEMENT shall survive any such expiration.

6.5.b LICENSEE shall cause every sublicense agreement granted after June 1, 2009, and in accordance with this LICENSE AGREEMENT to provide LICENSEE the right to assign its rights under the sublicense to UNIVERSITY in the event that this LICENSE AGREEMENT terminates, such assignment shall be accepted by UNIVERSITY in writing within thirty (30) days of receiving written notice from LICENSEE of each such assignment.

4. Sections 6.6 and 6.7 are hereby deleted in their entirety and replaced with the following new Section 6.6 and 6.7.

6.6 In the event that a third party company ("PROSPECTIVE SUBLICENSEE") wishes to commercialize a product for which they require a license under the PATENT RIGHTS ("PROPOSED PRODUCT") in a field that LICENSEE, its AFFILIATES or any sublicensee of either of the foregoing is not then developing, producing, or using the PATENT RIGHTS, then LICENSEE may elect one of the following:

(a) provide UNIVERSITY with written notice, in the form of a reasonable business development plan, that LICENSEE (i) has initiated a development program to commercialize the PROPOSED PRODUCT, or (ii) intends to initiate a development program within eighteen (18) months of the date of said written notice; or

(b) begin good faith negotiations with the PROSPECTIVE SUBLICENSEE; or

(c) grant back to UNIVERSITY their rights to the PATENT RIGHTS under this LICENSE AGREEMENT in the LICENSED FIELD in which such PROPOSED PRODUCT would infringe the PATENT RIGHTS.

6.7 If LICENSEE elects to negotiate with the PROSPECTIVE SUBLICENSEE for a sublicense to develop and commercialize the PROPOSED PRODUCT as provided for in Section 6.6(b), LICENSEE shall make a good faith effort to complete negotiations with the PROSPECTIVE SUBLICENSEE within one hundred and eighty (180) days from the date on which it began negotiations. This one hundred and eighty (180) day period may be extended by UNIVERSITY upon documentation provided to UNIVERSITY by LICENSEE that such extension is reasonable in view of the circumstances. For the purposes of this Section, LICENSEE will have made a good faith effort to complete negotiations if it has offered a sublicense to the PROSPECTIVE SUBLICENSEE the terms of which include (i) reasonable financial terms taking into account the field in which the sublicense is being offered and LICENSEE's obligations to UNIVERSITY pursuant to this LICENSE AGREEMENT; (ii) minimum performance requirements which would not be unreasonably burdensome upon the PROSPECTIVE SUBLICENSEE; and (iii) non-financial terms which are consistent with LICENSEE 's obligations to UNIVERSITY pursuant to this LICENSE AGREEMENT. In the event that LICENSEE and PROSPECTIVE SUBLICENSEE nevertheless fail to consummate any sublicensing transaction, LICENSEE shall provide written notification to UNIVERISTY providing details of the reasons for such failure and shall retain all UNIVERSITY PATENT RIGHTS and UNIVERSITY TECHNOLOGY to such PROPOSED PRODUCT and shall not be deemed to have breached the LICENSE AGREEMENT.

5. Section 7.2 is hereby deleted in its entirety and replaced with the following new Section 7.2:

7.2 It is expressly agreed that, notwithstanding the provisions of any other paragraph of this LICENSE AGREEMENT, upon the occurrence of any of the following events that remain uncured after sixty (60) days of receipt of written notice from UNIVERSITY describing such occurrence, then this LICENSE AGREEMENT shall automatically terminate: (i) the failure to deliver to UNIVERISTY any royalty or other payment at the time or times that the same should be due to UNIVERSITY under this LICENSE AGREEMENT, (ii) failure to provide reports as specified in Sections 4.1 and 4.2, (iii) the failure to keep complete, true and accurate accounting as specified in Section 4.3, (iv) failure to allow representative of UNIVERSITY to inspect LICENSEE's books and records as specified in Section 4.3, (v) failure of LICENSEE to use its commercially reasonable efforts to enforce sublicense's compliance as specified in Section 6.4, (vi) failure of LICENSEE to elect to terminate any sublicense agreement if the

sublicensee is in material breach and fails to cure such breach as specified in Section 6.4 and LICENSEE believes that termination of such sublicense agreement is a commercially reasonable action under the circumstances, (vii) failure to indemnify and hold UNIVERSITY harmless as specified in Section 11.1, 11.2, and 11.4 and (viii) failure to possess and maintain insurance as set forth in Section 11.3.

6. Section 7.5 of Article 7 of the Agreement is hereby amended and replaced in its entirety with the following new Section 7.5:

7.5 Upon early termination of this LICENSE AGREEMENT in whole or in part, LICENSEE shall provide UNIVERSITY with a written inventory of all UNIVERSITY TECHNOLOGY and LICENSED PRODUCTS in the process of manufacture, in use or in stock. LICENSEE shall have the privilege of disposing of the inventory of such LICENSED PRODUCTS within a period of one hundred and eighty (180) days of such termination, and shall pay to UNIVERSITY one and [***] percent ([***]%) of NET SALES of such LICENSED PRODUCTS within thirty (30) days of such sale. LICENSEE will also have the right to complete performance of all contracts for the sale of LICENSED PRODUCTS by LICENSEE requiring use of UNIVERSITY TECHNOLOGY, PATENT RIGHTS or LICENSED PRODUCTS within and beyond said period of one hundred and eighty (180) days provided that the remaining term of any such contract does not exceed one year. All LICENSED PRODUCTS which are not disposed of as provided above shall be delivered to UNIVERSITY or otherwise disposed of, in UNIVERSITY's sole discretion, and at LICENSEE's sole expense.

7. Sections 9.1 and 9.2 of Article 9 of the Agreement are hereby amended and replaced in their entirety with the following new Sections 9.1 and 9.2:

9.1 If the production, sale or use of LICENSED PRODUCTS under this LICENSE AGREEMENT by LICENSEE results in any claim for patent infringement against LICENSEE, LICENSEE shall promptly notify UNIVERSITY thereof in writing, setting forth the facts of such claim in reasonable detail. As between the parties to this LICENSE AGREEMENT, LICENSEE shall have the first and primary right and responsibility, at its own expense, to defend and control the defense of any such claim against LICENSEE, by counsel of its own choice. It is understood that any settlement, consent judgment or other voluntary disposition of such actions must be approved by UNIVERSITY, such approval not being unreasonably withheld. Subject to the policies of the Board of Governors of UNIVERSITY, UNIVERSITY agrees to cooperate with LICENSEE in any reasonable manner deemed by LICENSEE to be necessary in defending any such action. LICENSEE shall reimburse UNIVERSITY for any out of pocket expenses incurred in providing such assistance. Notwithstanding any other provision of this Agreement, all royalties, upfront, milestone, and/or sales-based payments, and damages paid by LICENSEE and resulting from any claim for infringement against LICENSEE, a sublicensee of LICENSEE, or UNIVERSITY

and based on LICENSEE or sublicensee's use of UNIVERSITY TECHNOLOGY or PATENT RIGHTS shall be offset against future royalties, fees, or other payments LICENSEE owes to UNIVERSITY hereunder. All other fees and expenses, including legal fees and related expenses, incurred by LICENSEE in defending UNIVERSITY TECHNOLOGY or PATENT RIGHTS

against claims for patent infringement shall be offset against future royalties, fees, and other payments LICENSEE owes to UNIVERSITY upon written approval from UNIVERSITY, such approval not to be unreasonably withheld.

9.2 In the event that any PATENT RIGHTS licensed to LICENSEE are infringed by a third party or there is misappropriation of any UNIVERSITY TECHNOLOGY by a third party, LICENSEE shall have the primary right, but not the obligation, to institute, prosecute and control any action or proceeding with respect to such infringement or misappropriation, by counsel of its choice, including any declaratory judgment action arising from such infringement or misappropriation. It is understood that any settlement, consent judgment or other voluntary disposition of such actions must be approved by UNIVERSITY, such approval not to be unreasonably withheld. If LICENSEE recovers monetary damages from a third party, then LICENSEE shall first be reimbursed for all un-reimbursed expenses and costs incurred by LICENSEE in connection with the prosecution of such action or proceeding and then shall pay to UNIVERSITY twenty percent (20%) of the balance of such recovered monetary damages.

8. Section 10.3 of Article 10 of the Agreement is hereby amended and replaced in its entirety with the following new Section 10.3:

10.3 OTHER THAN AS EXPRESSLY SET FORTH HEREIN, UNIVERSITY DISCLAIMS ALL WARRANTIES WITH REGARD TO PRODUCT(S) AND SERVICE(S) LICENSED UNDER THIS AGREEMENT, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. OTHER THAN AS EXPRESSLY SET FORTH HEREIN, UNIVERSITY ADDITIONALLY DISCLAIMS ALL OBLIGATIONS AND LIABILITIES ON THE PART OF UNIVERSITY AND INVENTORS, FOR DAMAGES, INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, SPECIAL, AND CONSEQUENTIAL DAMAGES, ATTORNEYS' AND EXPERTS' FEES, AND COURT COSTS (EVEN IF UNIVERSITY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, FEES OR COSTS), ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, USE, OR SALE OF THE PRODUCT(S) AND SERVICE(S) LICENSED UNDER THIS AGREEMENT. LICENSEE ASSUMES ALL RESPONSIBILITY AND LIABILITY ON BEHALF OF ITSELF, ITS AFFILIATE(S) AND ITS SUBLICENSEE(S) FOR LOSS OR DAMAGE CAUSED BY A PRODUCT AND/OR SERVICE MANUFACTURED, USED, OR SOLD BY LICENSEE, ITS SUBLICENSEE(S) AND AFFILIATE(S) WHICH IS A LICENSED PRODUCT(S) AS DEFINED IN THIS AGREEMENT.

9. Exhibit A to the Agreement is hereby amended and replaced in its entirety with the Exhibit A attached hereto.

10. As consideration for UNIVERSITY amending the PATENT RIGHTS and Exhibit A to include UNIVERSITY file 09-0078, LICENSEE shall pay UNIVERSITY five thousand dollars ($5,000) within thirty (30) days of the Effective Date of this Amendment.

11. Exhibit B to the Agreement is hereby deleted in its entirety and replaced with the new Exhibit B attached hereto.

12. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Signature Page Follows

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment to Amended and Restated License Agreement by their duly authorized officers or representatives.

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	LIQUIDIA TECHNOLOGIES, INC.
By: */s/ Catherine Innes*	By: */s/ Bruce Boucher*
Catherine Innes	Bruce Boucher
Director, Office of Technology Development	President

EXHIBIT A

PATENT RIGHTS

UNC Ref. No.	JWT or AB Ref. No.	LIQ Ref.No	Title	Country	App. NoJPatent No.	Filing Date	Status
04-0013	421/117	64549-5001	Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices	National	US 10/572,764 plus Foreign Counterparts filed in AU, CA, CN, EP, IN, JP ,MX ,SG	21/Mar/06	Pending
04-0067	421/96	64549-5003	Functional Materials and Novel Methods for the Fabrication of Microfluidic Devices	National	US 10/589,222 plus Foreign Counterparts filed in AU, CA, CN, EP, JP, SG	11/Aug/06	Pending
04-0067	421/96	64549-5003/01	Methods and Materials for Fabricating Microfluidic Devices	National	US 60/799,317 plus foreign counterparts filed in EP, CN	10/May/05	Pending
04-0104	421/90	64549-5002	Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography	National	US 10/583,570 plus Foreign Counterparts filed in AU, BR, CA, CN, EP, IL, IN, JP, KR, MX, SG, ZA	19/Jun/06	Pending
04-0104	421/90	64549-5020	Nanoparticle Fabrication Methods, Systems and Materials	National	US 11/921,614 plus Foreign Counterparts filed in JP ,EP ,BR ,CN ,CA ,AU ,IN ,MX	19/Jun/06	Pending
04-0104	421/90	64549-5021	Materials and Methods for Fabricating Isolated Micro- and Nano- Structures Having Chemical Functionality	PCT	PCT/US06/034997	7/Sept/06	Expired
04-0104	421/90	64549-5023	Taggants and Methods and Systems for Fabricating Same	National	US 12/162,264	29/Jan/07	Pending
04-0104	421/90	64549-5022	Isolated and Fixed Micro and Nano Structures and Methods	US	US 11/594,023 plus foreign counterpart	7/Nov/06	Pending

			thereof		filed in EP		
04-0104	421/90	64549-5033	Micro and Nano-Carriers For Biological	US	12/374,182	27/Jul/07	Pending
05-0008	421/136	64549-5005	Low Surface Energy Polymeric Material for Use in Liquid Crystal Displays	National	US 11/883,304 plus foreign counterparts in JP, KR, CN, EP, SG,	3/Feb/06	Pending
07-0006	421/90/5	064549-5026	Micro and Nano-particles for Photovoltaics and Methods of Making the Same	National	US case filed 9/Nov/2008 plus foreign counterparts in EP, JP, KR, and CN	09/May/06	Pending
07-0014	421/189/P ROV	064549-5009PR	New Materials Based on PFPE With Hydrophilic Components	US	US 60/836,633	09/Aug/06	Expired
07-0028	421/194 PCT	064549-5010	Nanoparticle Compositions for Controlled Delivery of Nucleic Acids	US	12/444,662	09/Oct/06	Pending
07-0044	421/187/2 PROV	064549- 5002P15	Nano-Molding of Large Area, 2-D Array Photovoltaic Cells	US	US 60/857,669	07/Nov/06	Expired
07-0074	421/90/10 PCT	064549- 5028W0	Discrete Size and Shape Specific Pharmaceutical Organic Nanoparticles	PCT	PCT/US2008/055109	27/Feb/07	Pending
07-0079	421/208 PCT	064549-5027WO	Discrete Size and Shape Specific Organic Nanoparticles Designed to Illicit an Immune Response	PCT	PCT/US2008/058022	23/Mar/07	Pending
07-0047	421/197 PCT	64549-5012/WO	Polymer Particle Composite Having High Fidelity Order, Size, and Shape Particles	PCT	PCT/US2007/023805	15/Nov/06	Pending
08-0064	35052/340 465	64549-5038PR	Delivery Apparatus and Associated Method	PCT	PCT/US2009/36068	25/Feb/08	Pending

		64549-5041PR	Compositions and Methods for Intracellular Delivery and Release of Cargo	PROV	61/047,980	25/Apr/08	Expired
08-0090	35052/339 994	64549-5042PR	Degradable Compounds and Methods of Use Thereof, Particularly with Particle Replication in Non-Wetting	PCT	PCT/US2009/041652	25/Apr/08	Pending

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

			Templates				
		64549-5043PR	High Fidelity Through Hole Film, and Associated Method	PROV	US 61/075,103	24/Jun/08	Pending
09-0078		64549- 5046PR	Interventional Drug Delivery System and — Associated Methods	PROV	US61/155,800	26/Feb/09	Pending

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT B

MILESTONES

Capitalized terms set out in this Exhibit B shall be defined as provided in the LICENSE AGREEMENT.

Milestone Q:

Q) LICENSEE shall submit, by January 30 of each year subsequent to the Effective Date of this First Amendment, a business plan outlining its development and commercialization plans for any product covered in whole or in part by any rights in UNIVERSITY TECHNOLOGY or PATENT RIGHTS that are being developed and commercialized by LICENSEE, LICENSEE's AFFILIATES or any sublicensee of either of the foregoing.

Milestones R-U:

R) Initiation of a Phase I clinical trial by LICENSEE, LICENSEE's AFFILIATE or sublicensee of either of the foregoing of any product covered in whole or in part by any rights in UNIVERSITY TECHNOLOGY or PATENT RIGHTS by January 1, 2013.

S) Initiation of a Phase III clinical trial, subject to FDA agreement, by LICENSEE, LICENSEE's AFFILIATE or sublicensee of either of the foregoing of any product covered in whole or in part by any rights in UNIVERSITY TECHNOLOGY or PATENT RIGHTS by January 1, 2016.

T) Commercial sale by LICENSEE, LICENSEE's AFFILIATE or sublicensee of either of the foregoing of any product covered in whole or in part by any rights in UNIVERSITY TECHNOLOGY or PATENT RIGHTS, by January 1, 2016.

U) Commercial sale by LICENSEE, LICENSEE's AFFILIATE or sublicensee of either of the foregoing of any product covered in whole or in part by any rights in UNIVERSITY TECHNOLOGY or PATENT RIGHTS which has not previously been commercialized by January 1, 2018.

Exhibit 10.19

6th AMENDMENT TO AMENDED AND RESTATED LICENSE AGREEMENT

6th AMENDMENT TO AMENDED AND RESTATED LICENSE AGREEMENT, ("6th Amendment") effective as of June 10, 2016 ("Effective Date"), by and between The University of North Carolina at Chapel Hill, having an address at 100 Europa Drive, Suite 430, Chapel Hill, North Carolina 27517, ("University"), and Liquidia Technologies, Inc., a corporation existing under the laws of Delaware, and having an address at 419 Davis Drive, Suite 100, Morrisville, NC 27560 ("Licensee").

WITNESSETH:

WHEREAS, Licensee and University have entered into an Amended and Restated License Agreement dated as of December 15, 2008, First Amendment dated June 8, 2009, Second Amendment dated June 1, 2012, Third Amendment dated October 7, 2014, 4th Amendment dated July 22, 2015, and 5th Amendment dated November 12, 2015 (collectively the "Agreement"); and

WHEREAS, University and Licensee wish to amend the Agreement to extend the term for Milestone U under the Agreement upon the terms and conditions set forth below.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged and in consideration of the promises and mutual covenants contained in the Agreement and herein, the parties hereto agree as follows:

1. The date for completion of Milestone U shall be amended to replace "January 1, 2018", with "December 31, 2020".

2. This 6th Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this 6th Amendment to Amended and Restated License Agreement by their duly authorized officers or representatives.

THE UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL		LIQUIDIA TECHNOLOGIES, INC.	
BY:	*/s/ Jacqueline Quay*	BY:	*/s/ Shawn Glidden*
Name:	Jacqueline Quay	Name:	Shawn Glidden
Title:	Director of Licensing, OCED	Title:	VP Legal Affairs & Secretary

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

MANUFACTURING DEVELOPMENT AND SCALE-UP AGREEMENT

This Manufacturing Development and Scale-up Agreement (the "Agreement") is made as of March 19, 2012 (the "Effective Date"), between **Liquidia Technologies, Inc.**, a Delaware corporation ("Liquidia") having its principal place of business at Suite 100, 419 Davis Drive, Morrisville, NC 27560 and **Chasm Technologies, Inc.**, a Massachusetts corporation ("Chasm") with principal offices located at 85 Wagon Rd, Westwood, MA 02090.

Whereas; Chasm and Liquidia entered into a Consulting Services and License Agreement on 31 August 2006 (the "Chasm Consulting Agreement"), which was mutually terminated by the parties as of the Effective Date; and

Whereas; the parties desire to now enter a manufacturing development and scale-up agreement whereby Chasm wishes to assist Liquidia in scale-up and optimization of Liquidia's PRINT manufacturing capabilities.

In consideration of the mutual promises and agreements contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Definitions. Capitalized terms used in this Agreement shall have the meanings specified in this Agreement. In addition, the following terms shall have the meanings below:

"Chasm Pre-Existing Intellectual Property" means Pre-Existing Intellectual Property owned or licensed by Chasm or its subcontractors.

"Deliverable" means any deliverable developed or prepared for Liquidia pursuant to this Agreement.

"Net Sales" means the worldwide gross receipts from sales to third parties of all Products, less all customary deductions actually paid using generally accepted accounting principles for i) trade, cash and quantity credits, discounts, refunds or rebates; ii) allowances or credits to customers actually granted on account of rejection, damage, or return of product; iii) sales commissions; iv) sales and excise taxes (including value added tax) and any other governmental charges imposed upon the production, importation, use or sale of product; and v) transportation charges, including insurance, for transporting product to the extent specifically invoiced to the customer.

"Pre-Existing Intellectual Property" means the data, information, tools, ideas, techniques, methodologies, specifications, documentation, notes and materials, including any patents, patent rights, copyrights, mask works, trade secrets and other intellectual property rights embodied therein, owned or controlled by a party prior to or independent of Chasm's performance under this Agreement, and whether or not used to produce, or embodied in, the Deliverables.

"Products" shall mean any particle or film fabricated in-whole or in-part under this Agreement.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

2. Activities To Be Performed.

2.1 Activities. Liquidia agrees to retain Chasm, and Chasm agrees to perform the services reasonably requested by Liquidia pursuant to the terms of this Agreement (the "Activities"). The Activities are to be performed by Chasm personnel and, subject to the prior written consent of Liquidia, not to be unreasonably withheld, Chasm subcontractors, including, utilization of the resources and any Chasm Pre-Existing Intellectual Property necessary or useful to complete the Activities.

2.2 Use of Subcontractors. Prior to entering into any subcontractor agreement, Chasm shall provide a copy, with the commercial terms redacted, of any such proposed subcontract to Liquidia and receive Liquidia's prior written approval, which shall not be unreasonably withheld. Any such agreement with subcontractors shall prohibit disclosure of Confidential Information and assign to Chasm all rights to any Liquidia Owned Intellectual Property developed by the subcontractor pursuant to this Agreement which Chasm shall thereafter assign to Liquidia as set forth in Sections 7.2, and require the subcontractor to license to Chasm all Subcontractor Pre-Existing Intellectual Property that is used in the Project or Deliverables which Chasm shall thereafter license to Liquidia in accordance with Sections 7.3a and 7.3b, as applicable.

2.3 Changes. This Agreement and any appendix or attachment may be changed only by an agreement in writing signed by an authorized representative of both parties.

2.4 Cooperation. Each party shall generally provide such cooperation as the other party reasonably requests regarding the Activities in accordance with customary business practices. Unless otherwise expressly agreed and as otherwise set forth in this Agreement, such cooperation shall be provided without cost to the other party.

2.5 Ownership of Equipment and Supporting Documentation. Liquidia shall own the entire right, title and interest to all equipment, machinery and supporting documents, plans and reports for the equipment and machinery created as a result of the performance of the Activities unless otherwise agreed to in writing. All material and information protectable by copyright are "works made for hire," as that term is defined in the 1976 Copyright Act as amended (title 17 of the United States Code).

3. Compensation, Royalties and Expenses. Liquidia's payment obligations to Chasm are limited to those expressly defined in the following Sections 3.1, 3.2 and 3.3.

3.1 Compensation. Liquidia agrees to pay Chasm for the Activities in accordance with the compensation schedule for the Activities in Appendix A.

3.2 Expenses. Liquidia agrees to reimburse Chasm for reasonable and necessary travel and out-of-pocket expenses incurred in connection with the performance of the

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Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Activities. Reimbursement by Liquidia shall be made within thirty days (30) after submission by Chasm to Liquidia of expense reports, with copies of supporting documentation.

3.3 Royalties; Advanced Minimum Royalties.

3.3 a. Advance Minimum Royalties. Upon execution of this Agreement Liquidia shall pay Chasm equal monthly installments of $[***] beginning on the first full month after the Effective Date and continuing for the next consecutive twenty (20) months for a total of $[***] as partial consideration for entering into this Agreement with the significant obligations required of Chasm ("Partial Prepayment of Future Royalties"). In addition, upon the first dosing of the first patient in the first Phase III clinical trial using a Product ("Phase III Initiation"), $400,000 shall become due to Chasm by Liquidia and payable by Liquidia to Chasm in equal monthly installments per month for the immediately following twelve (12) consecutive months. Together the above Partial Prepayment of Future Royalties of $[***] and Phase III Initiation payment of $400,000 shall be defined as the "Advanced Minimum Royalties", which shall apply as partial prepayment of future royalties and be credited against the Cumulative Royalties payable by Liquidia to Chasm hereunder.

3.3.b Future Royalties.

3.3.b.1. Liquidia shall pay to Chasm (i) a royalty of [***] percent ([***]%) of the Net Sales of all Products that incorporate, use, or result from using Liquidia Owned Intellectual Property (the "Sales Royalty") and (ii) a royalty of [***] percent ([***]%) of all license fees and royalties received by Liquidia, from a party other than Chasm or its subcontractors, for each sublicense of Liquidia Owned Intellectual Property (the "License Fee").

3.3.b.2 Notwithstanding the above, the License Fees in this Section 3.3.b shall not be triggered or become due for any sublicense in the context of research collaboration activities or licenses not related to commercialization activities.

3.3.c. During the term of this Agreement, the total maximum amount of monies to be paid by Liquidia to Chasm under this Agreement (which amount includes the Advanced Minimum Royalties, Sales Royalty, and License Fee) shall be $[***] ("Cumulative Royalties"). Upon Liquidia paying to Chasm the Cumulative Royalties, no further monies shall be due under this Agreement and the license grants in this Agreement shall become fully paid worldwide licenses according to their terms. For clarity, the Advanced Minimum Royalties, Sales Royalty, and License Fee aggregate toward the Cumulative Royalties, however the Cumulative Royalties do not include consulting fees or other service related compensation paid by Liquidia to Chasm under this Agreement.

3.4 Payment Terms. Liquidia shall pay each invoice set forth in the compensation schedule in Appendix A, in full, within thirty (30) days of Liquidia's receipt of an accurate and reasonable invoice. Any invoice payable by Liquidia which remains unpaid after the due date shall accrue interest at a rate of 1.0% per month. Liquidia shall be liable for all collection expenses incurred by Chasm for delinquent amounts, including without limitation reasonable attorneys' fees.

3.5 Reports and Royalty Payments. Commencing upon the commercialization of the first Product triggering royalties under this Agreement, within thirty (30) days following the last day of each calendar quarter during the term, Liquidia shall deliver to Chasm a written report showing, in reasonable detail, the royalties owed by such party to the other party in such quarter accompanied by any royalty payments due and owing.

3.6 Audit Rights. Each party shall have the right to audit the relevant records of the other party upon reasonable notice and not more than once annually to verify compliance with the terms of this Agreement. Fees and expenses incurred in connection with such audits will be borne by the auditing party, unless such audit reveals that an error of five percent (5%) or more and at least $2,500, in any payment was made during any given quarter, in which case the fees and expenses incurred in connection with the audit during which such error was discovered will be borne by audited party. Any such audit shall occur during regular business hours, and shall not unreasonably interfere with regular business activities.

3.7 Records. During the term of the Agreement and for three (3) years after royalties are due and payable, each party shall maintain true and complete books and records related to all royalty sales and applications.

4. Work Rules. Chasm and Chasm's Representatives (as defined below) agree to comply with Liquidia's applicable work rules and regulations of which Chasm is informed in writing, including any security requirements while on Liquidia premises. Chasm and Chasm's Representatives further agree to comply with all applicable governmental regulations and abide by Liquidia's security requirements while on Liquidia premises.

Each party agrees that when its clients and Representatives are present on the premises of another party to this Agreement, they each shall comply with such rules and regulations as are notified to them for the conduct of individuals on those premises, and are subject to removal from the premises in the event they fail to comply with such rules.

Each party acknowledges and agrees that some of its employees, consultants, subcontractors or independent contractors will be performing work (the "Use Party") on each other party's (the "Location Owner") properties, including laboratories. Each party further acknowledges that the other parties perform work for other clients, including the U.S. Government, where security and confidentiality is an issue. Therefore, the Use Party agrees that it will, if directed by a Location Owner on whose property it is performing work, instruct the Use Party's staff, agents, officers, directors, employees, consultants, subcontractors or independent contractors (its "Representatives") who work on the Location Owner's property, to execute any additional confidentiality agreements or appropriate documents as are deemed reasonably necessary by the Location Owner.

5. Representations, Warranties and Covenants.

5.1 Compliance with Other Agreements. Chasm and Liquidia each represent to the other that to each Party's knowledge the execution of this Agreement, the performance of

the obligations hereunder, and the licenses granted herein do not and will not conflict with, result in the breach or termination of any provisions, or constitute a default under, any agreement to which Chasm or Liquidia, as the case may be, is or may be bound.

5.2 Necessary Licenses. Chasm and Liquidia each represent and warrant to the other that to each Party's knowledge each has all necessary licenses from subcontractors and licensors to perform the Activities, and to complete the Deliverables in accordance with this Agreement.

5.3 Limited Warranty. Chasm represents and warrants that, to its knowledge and belief, (i) Chasm did not use or incorporate any proprietary subcontractor, or other third party, intellectual property into the deliverables generated and/or delivered to Liquidia under the Chasm Consulting Agreement; (ii) Liquidia has the freedom to practice the deliverables generated and/or delivered to Liquidia under the Chasm Consulting Agreement with respect to Chasm pre-existing intellectual property and any intellectual property Chasm developed under the Chasm Consulting Agreement; and (iii) Chasm has the skills and experience necessary to perform the Activities required under this Agreement and that it will use best efforts to the extent commercially reasonable, to perform said Activities in a professional, competent and timely manner.

5.4 Additional Representations, Warranties and Covenants.

5.4.1 All respective former and current employees and subcontractors of Chasm and Liquidia that have, have had, or will have access to confidential information have executed written agreements prohibiting disclosure of confidential information and assigning to each respective party, as applicable, all rights to any and all intellectual property, including inventions made during or derived from their relationship, to each respective party, as applicable.

5.4.2 Each Party has taken and will continue to take commercially reasonable precautions to protect the secrecy of its confidential information and trade secrets.

5.4.3 Neither Party has been alleged to infringe or misappropriate any intellectual property right of any other person or entity, there is no claim or action served or threatened, alleging any such infringement or misappropriation and neither party is aware of any such claim or action.

5.4.4 To the knowledge of the Parties, the operation of their respective businesses as presently conducted does not infringe or misappropriate any third-party intellectual property right.

5.4.5 Chasm represents that, to the best of its knowledge, neither it nor any of its personnel has been debarred, and to the best of its knowledge, is not under consideration to be debarred, by the U.S. Food and Drug Administration from working in or providing consulting services to any pharmaceutical or biotechnology company under the Generic Drug Enforcement Act of 1992.

5.5 No Government Funding. Chasm covenants that none of the Activities performed by Chasm or its subcontractors under this Agreement shall be funded in whole or in part by any government entity.

5.6 Additional Covenants.

5.6.1 Prior to incorporating into its Deliverables any third party intellectual property of which Chasm is aware and that Chasm reasonably believes the manufacture, use, sale, offer to sell, importation or other exploitation of which would require Liquidia to obtain a further license, Chasm shall identify such third party intellectual property to Liquidia. Liquidia shall determine at its sole discretion and notify Chasm, within a commercially reasonably time, whether or not to incorporate such third party intellectual property into the Deliverable. If Liquidia notifies Chasm to

incorporate such third party intellectual property, Liquidia shall be responsible for procuring the necessary license that would permit such third party intellectual property to be used in the Project and the Deliverable.

5.6.2 At times reasonably requested by Liquidia, Chasm shall produce to Liquidia a comprehensive list of: a) agreements related to intellectual property of which Chasm is aware and reasonably believes affects or may affect the Activities and/or the use of the Deliverables; and b) all agreements between Chasm employees and their former employers or clients of which Chasm is aware, after a reasonable investigation, and reasonably believes is related to intellectual property that affects or may affect the Activities and/or the use of the Deliverables. All such information and agreements transferred under this Agreement shall be treated as Chasm Confidential Information by Liquidia.

5.6.3 All future employees of Chasm, Chasm subcontractors, and Liquidia that will have access to Confidential Information will execute written agreements prohibiting disclosure of confidential information and assigning to each respective party, as applicable, all rights to any and all intellectual property, including inventions made during or derived from their relationship, to each respective party, as applicable.

5.7 Disclaimer. EXCEPT AS OTHERWISE STATED IN SECTIONS 5.1, 5.2, 5.3, 5.4, 5.5 AND 5.6 NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES, OF ANY KIND OR NATURE, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, TITLE OR NON-INFRINGEMENT.

6. Confidentiality.

6.1 Each party acknowledges that in the course of this Agreement it will receive information about, and access to, trade secrets and other confidential and proprietary information which is vital to the competitive position and success of the other party to this Agreement. The term "Confidential Information" as used throughout this Agreement shall mean with respect to a party, all proprietary information and technology of such party that is disclosed to the other party under this Agreement, whether disclosed in oral, written, graphic, or electronic form. Notwithstanding the foregoing, all information and technology generated under this

Agreement, whether generated by one or both parties shall be deemed the Confidential Information of the party that owns such information and technology under the terms of this Agreement.

Except as expressly provided herein, the parties agree that, under this Agreement and for ten (10) years thereafter, each party will keep completely confidential and will not publish or otherwise disclose or use any Confidential Information of the other party except in connection with the activities contemplated by this Agreement without such other party's prior written consent, except for that portion of such information or materials that the receiving party can demonstrate by competent tangible proof:

(a) was already known or available to the receiving party, other than under an obligation of confidentiality or non-use to the other party, at the time of disclosure to the receiving party;

(b) was part of the public domain, at the time of its disclosure to the receiving party;

(c) became part of the public domain, after its disclosure to the receiving party through no fault of or breach of its obligations under this Agreement by the receiving party;

(d) was lawfully disclosed to the receiving party, other than under an obligation of confidentiality or non-use, by a third party rightfully in possession of the Confidential Information who had no obligation to the disclosing party not to disclose such information to others;

(e) was independently discovered or developed by or for the receiving party without access to, use of, reference to, or reliance upon Confidential Information belonging to the disclosing party; or

(f) is required to be disclosed pursuant to any applicable law, regulation, or legal order, provided that the receiving party has notified the disclosing party upon learning of the possibility that disclosure could be required pursuant to any such law, regulation, or legal order and has given the disclosing party a reasonable opportunity to contest or limit the scope of such required disclosure and has cooperated with the disclosing party toward this end.

Notwithstanding the above, specific aspects or details of Confidential Information will not be deemed to be within the public domain or in the prior possession of the receiving party merely because the aspects or details of the Confidential Information are embraced by general disclosures in the public domain. In addition, any combination of Confidential Information will not be considered in the public domain or in the prior possession of the receiving party merely because individual elements thereof are in the public domain or in the prior possession of the receiving party unless the combination is in the public domain or in the prior possession of the receiving party.

Each of the parties agrees that it shall provide Confidential Information received from the other party only to the receiving party's respective directors, officers, employees, agents, and financial and legal advisors who have a need to know such Confidential Information to assist the receiving party with the activities contemplated by this Agreement and are under written agreements of confidentiality at least as restrictive as those set forth in this Agreement.

6.2 Return of Confidential Information. Upon expiration or early termination of this Agreement, each party shall return or destroy all Confidential Information received by it

from the other party. Notwithstanding the foregoing, each party shall be allowed to keep one (1) archival copy of any Confidential Information of the other party for record-keeping purposes only.

6.3 The Activities anticipated in this Agreement shall be performed by Representatives who may be retained by each party. Any individual who assists in the performance of the Activities anticipated herein shall, prior to providing any such assistance, have executed an agreement with its employer or contracting party that is a signatory to this Agreement with terms no less restrictive than the terms of this Agreement.

7. Intellectual Property Rights and Licenses

7.1 Each party shall own its Pre-Existing Intellectual Property. Liquidia and/or Chasm or Chasm subcontractors from time to time may invent and/or create and/or develop and/or license or otherwise acquire rights and/or interests in intellectual property in performing the Activities, including rights and interests in any inventions (whether patentable or not), trade secrets, know how, and works of authorship fixed in any tangible medium of expression, known or later developed, from which they can be perceived, reproduced, or otherwise communicated, whether directly or with the aid of a machine or device (whether registerable or not) in connection with performing the Activities under this Agreement ("New Project IP"); provided that New Project IP shall not include any Pre-Existing Intellectual Property.

7.2 With respect to New Project IP, Liquidia and Chasm agree that all right, title and interest in New Project IP shall be owned by Liquidia ("Liquidia Owned Intellectual Property"). Chasm agrees to assign and hereby does assign to Liquidia its entire right, title and interest to Liquidia Owned Intellectual Property including all of Chasms rights to bring suit and recover damages for past and future infringement.

7.3 a. Chasm grants Liquidia a perpetual, exclusive, sublicensable worldwide license, in accordance with the terms of this Agreement, to make, have made, use, offer to sell, sell, import, reproduce, prepare derivative works, and distribute Chasm Pre-Existing Intellectual Property solely as incorporated into the Activities and/or Deliverables for use or applications related to molded particles and harvested molded particles (the "Liquidia Permitted Exclusive Uses").

b. Chasm grants Liquidia a perpetual, non-exclusive, sublicensable worldwide license, in accordance with the terms of this Agreement, to make, have made, use, offer to sell, sell, import, reproduce, prepare derivative works, and distribute Chasm Pre-Existing Intellectual Property solely as incorporated into the Activities and/or Deliverables for any use or application with Liquidia's PRINT platform technology other than molded particles and harvested molded particles (the "Liquidia Permitted Non-exclusive Uses").

7.4 All sublicenses shall include terms to protect the confidentiality of Chasm Pre-Existing Intellectual Property with terms at least as restrictive as this Agreement.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

7.5 Chasm may cause the exclusive license granted in Section 7.3 to Liquidia Permitted Exclusive Uses to become non-exclusive when (a) after the fourth anniversary of the Phase III Initiation if the cumulative of the Advanced Minimum Royalties, Sales Royalty and License Fee paid by Liquidia to Chasm have not exceeded $1,000,000 and Liquidia has failed to bring such cumulative total payment to Chasm to $1,000,000 after thirty (30) days written notice from Chasm and (b) after the eighth anniversary of the Phase III Initiation if Liquidia has not paid Chasm the Cumulative Royalties and Liquidia has failed to satisfy the Cumulative Royalties after thirty (30) days written notice from Chasm.

8. Term and Termination.

8.1 Term. This Agreement is in effect from the Effective Date until the Activities are completed and accepted by Liquidia unless terminated earlier.

8.2 Termination.

8.2.1 Material Breach. Either party may, upon giving thirty (30) days written notice, terminate this Agreement for the other party's breach of any of its material obligations under this Agreement, provided that the breaching party shall not have cured such breach within the thirty (30) day notice period.

8.2.2 Either party may terminate this Agreement for its convenience upon giving sixty (60) days prior written notice to the other party.

8.2.3 Mutual Termination. The parties may agree to terminate this Agreement in a writing signed by both parties at any time prior to completion of the Activities.

8.3 Effect of Termination.

8.3.1 Upon termination of this Agreement, each party shall promptly return to the other party all Confidential Information of the other party and all equipment and products owned or controlled by the other party in its possession or under its control.

8.3.2 In the event of a material breach by Liquidia, all licenses granted to Liquidia shall terminate, provided Liquidia does not cure such breach within forty five (45) days following receipt of a detailed written notice of the breach by Chasm.

8.3.3 In the event of a material breach by Chasm, Liquidia shall pay Chasm for all reasonable out of pocket costs and expenses for Activities accepted through the termination date subject to a set-off by Liquidia of costs associated with Chasm's material breach and all licenses granted to Liquidia hereunder shall survive.

8.3.4 Should Liquidia terminate this Agreement under Section 8.2.2 for convenience, all Liquidia Owned Intellectual Property created as of the date of termination shall remain the property of Liquidia, all license rights and obligations created under this Agreement

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

as of the date of termination shall survive the termination and Liquidia shall pay Chasm (a) reasonable costs and expenses incurred by Chasm under this Agreement through the termination date, and (b) the Advanced Minimum Royalties under Section 3.3 a.

8.3.5 Should the parties terminate this Agreement under Section 8.2.3 for mutual convenience, all Liquidia Owned Intellectual Property created as of the date of termination shall remain the property of Liquidia, all license rights and obligations created under this Agreement as of the date of termination shall survive the termination and Liquidia shall pay Chasm reasonable costs and expenses incurred by Chasm under this Agreement through the termination date.

8.3.6 For the avoidance of doubt, the Parties acknowledge that Liquidia's ownership rights with respect to Liquidia Owned Intellectual Property is and shall be irrevocable and unaffected by any expiration or termination of this Agreement for any reason.

8.4 Survival. Sections 2.5, 3.3-3.7, 5, 6, 7, 8.3, 8.4, 9-15, and 18-19 shall survive the expiration or termination of this Agreement.

9. Specific Performance. Chasm and Liquidia each recognizes that irreparable injury may be caused to the other by its violation or material breach of Sections 6-7 of this Agreement, and Chasm and Liquidia each agrees that, in the event of any such violation, in addition to such other rights and remedies as may exist under this Agreement, the other may apply to any court of law or equity having jurisdiction to enforce the specific performance of the provisions hereof, and may apply for injunctive relief against any act which would violate any such provisions.

10. Limitation on Liability. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, NEITHER PARTY SHALL BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR SPECIAL DAMAGES (INCLUDING LOSS OF PROFITS, DATA, BUSINESS OR GOODWILL), REGARDLESS OF WHETHER SUCH LIABILITY IS BASED ON BREACH OF CONTRACT, TORT, STRICT LIABILITY, BREACH OF WARRANTIES, FAILURE OF ESSENTIAL PURPOSE OR OTHERWISE, AND EVEN IF ADVISED OF THE LIKELIHOOD OF SUCH DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE LIABILITY OF CHASM FOR DIRECT DAMAGES, REGARDLESS OF WHETHER SUCH LIABILITY IS BASED ON BREACH OF CONTRACT, TORT, STRICT LIABILITY, BREACH OF WARRANTIES, FAILURE OF ESSENTIAL PURPOSE OR OTHERWISE, UNDER THIS AGREEMENT OR WITH RESPECT TO THE ACTIVITIES SHALL IN NO EVENT EXCEED THE AGGREGATE AMOUNT OF FEES WHICH CHASM RECEIVES IN CONNECTION WITH THIS AGREEMENT. THESE LIMITATIONS ARE INDEPENDENT OF ALL OTHER PROVISIONS OF THIS AGREEMENT AND SHALL APPLY NOTWITHSTANDING THE FAILURE OF ANY REMEDY PROVIDED HEREIN.

11. Independent Contractor. Chasm and Liquidia agree that Chasm shall provide the Activities to Liquidia solely as an independent contractor. This Agreement is not intended to and should not be deemed to create an employment or principal-agent relationship or joint venture between Chasm, or any of its employees or contractors, and Liquidia, and neither party shall

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

have the right, power or authority to obligate, commit or incur any liability on behalf of the other party or to otherwise act in any way as an agent or representative of the other party or bind the other in any manner whatsoever.

12. Bankruptcy. The licenses granted in this Agreement ("Licenses") are licenses for intellectual property, as such term is defined in Section 101 of Title 11 of the United States Code (the "Bankruptcy Code"). The parties acknowledge and agree that, upon the filing of a petition for relief under the Bankruptcy Code by or against the Grantor (a "Filing"), whether such Filing is voluntary or involuntary, it is intended that this Agreement and the Licenses shall be subject to the provisions of Section 365(n) of the Bankruptcy Code, and, as such, the parties shall retain and may fully exercise all of its rights and elections provided thereunder. In the event of a Filing, the parties shall, promptly upon written request by the other party, comply with the provisions of Section 365(n) of the Bankruptcy Code, including subsections (3) and (4) thereof.

13. Severability. In the event any provision of this Agreement, in whole or in part, is invalid, unenforceable or in conflict with the applicable laws or regulations of any jurisdiction, such provision will be replaced, to the extent possible, with a provision which accomplishes the original business purposes of the provision in a valid and enforceable manner, and the remainder of this Agreement will remain unaffected and in force provided, however, that if without such invalid or unenforceable provision the fundamental mutual objectives of the parties cannot be achieved, either party may terminate this Agreement without penalty by written notice to the other.

14. Governing Law; Headings; Counterparts. This Agreement shall be governed by and interpreted according to the laws of the State of Delaware without regard for any choice or conflict of laws rule or provision that would result in the application of the substantive law of any other jurisdiction. The headings of the several sections are for convenience only and are not intended to be part of or

to affect the meaning or interpretation of this Agreement. This Agreement may be executed in counterparts (all of which counterparts shall constitute one and the same agreement) and may be executed by facsimile transmission.

15. Assignment; Successors & Assigns. This Agreement and the rights and obligations hereunder may not be assigned in whole or in part by any party and any such assignment shall be null and void; provided, however, that an assignment may be made by any party to the surviving entity of a merger or acquisition of substantially all of the assets of such party. This Agreement shall bind and inure to the benefit of all parties to this Agreement and their respective successors and permitted assigns.

16. Force Majeure. Neither party will be liable for any delays or failures in performance due to circumstances beyond its reasonable control. In the event that either party is prevented from performing due to causes beyond its control, such party shall notify the other party, explaining the cause for same and the dates or times for performance shall be extended for the period of the delay and a reasonable additional time.

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

17. Entire Agreement; Waiver. This Agreement together with the appendices and attachments thereto, sets forth the entire agreement between the parties concerning the transactions and arrangements contemplated hereby, and supersede all prior oral or written arrangements or agreements. This Agreement may be amended only by an instrument in writing signed by both parties and may be waived only by an instrument in writing signed by the party against whom enforcement of the waiver is sought. The waiver by either party of any breach of this Agreement on one occasion shall not operate or be construed as a waiver of any other breach on another occasion.

18. Remedies. Except as expressly provided herein, the remedies provided in this Agreement are not and shall not be deemed to be exclusive and shall be in addition to any other remedies that a Party may have at law or in equity.

19. Publicity. Other than with respect to any internal reports or reporting to federal, state, and local authorities for purposes of compliance with legal reporting requirements (such as, for example, any appropriate reporting to the U.S. Securities & Exchange Commission), neither Party shall, without the express written consent of the other Party, use the name or mark of the other Party in transacting business or issue any public reports, statements, or releases pertaining to the transaction contemplated by this Agreement.

IN WITNESS WHEREOF, Liquidia and Chasm have duly executed this Agreement as of the Effective Date.

Chasm Technologies, Inc.		**Liquidia Technologies, Inc.**	
By:	*/s/ Robert F. Praino*	By:	*/s/ Bruce Boucher*
Name:	Robert F. Praino	Name:	Bruce Boucher
Title:	Co-Founder	Title:	President & CFO

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

APPENDIX A

COMPENSATION SCHEDULE

Components of cost:

- Consulting Activities rate will be $[***] per hour for the services of [***] and $[***] per hour for all others. It is expected that the workload related to this charge will be as needed as specified by Liquidia.
- Engineering rates (other subcontractors as required) will be based on the specific resource engaged (e.g. mechanical design, electrical design, third party analytical services, machine shops, etc.).
- Equipment enhancements or fabrication will be funded by Liquidia.
- Travel expenses for Chasm and/or sub-contractors will be pre-approved and funded by Liquidia.

Exhibit 10.21

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

CONFIDENTIAL

1st AMENDMENT TO MANUFACTURING DEVELOPMENT AND SCALE-UP AGREEMENT

1st AMENDMENT TO MANUFACTURING DEVELOPMENT AND SCALE-UP AGREEMENT, ("1st Amendment") effective as of May 25, 2017 ("Effective Date"), by and between Chasm Technologies, Inc., a Massachusetts corporation ("Chasm") having a place of business at 85 Wagon Rd, Westwood, MA 02090; B&D Holdings, Inc., a Massachusetts corporation ("B&D") having a place of business at 85 Wagon Rd, Westwood, MA 02090; and Liquidia Technologies, Inc, a Delaware corporation ("Liquidia"), having a place of business at Suite 100, 419 Davis Drive, Durham, NC 27713. For simplicity, Chasm and B&D may be collectively referred to herein as B&D.

WITNESSETH:

WHEREAS, Liquidia and Chasm Technologies, Inc., ("Chasm") have entered into a Manufacturing Development and Scale-up Agreement having an effective date of March 19, 2012 ("Agreement");

WHEREAS, Chasm assigned the Agreement, in part, to B&D on or after January 22, 2014, with written consent of Liquidia dated January 22, 2014, and May 13, 2014.

WHEREAS; Chasm, B&D and Liquidia now wish to amend the Agreement upon the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the promises and mutual covenants contained in the Agreement and herein, the parties hereto agree as follows:

1. The monthly installment payment mechanism of the Phase III Initiation payment of four hundred thousand ($400,000) dollars is hereby deleted in its entirety and replaced with the following payment mechanism:

   Liquidia shall pay B&D (i) twenty thousand ($20,000) dollars upon execution of this 1st Amendment; (ii) eighty thousand ($80,000) dollars upon the first dosing of the first patient in the first Phase III clinical trial using a Product ("Phase III Initiation"); and (iii) three hundred thousand ($300,000) dollars no later than December 31, 2018.

2. Liquidia hereby agrees to accelerate [***] ($[***]) dollars of the remaining Cumulative Royalties to become due and payable upon the first approval of Liquidia's first new drug application ("NDA") ("Additional Advanced Minimum Royalty").

3. For clarity, cumulatively the Advanced Minimum Royalties, Additional Advanced Minimum Royalty, Sales Royalty and License Fee paid under the Agreement and this 1st Amendment shall not exceed the Cumulative Royalties of [***] ($[***]) dollars as defined in the Agreement. For further clarity, upon full payment of (i) the Advanced Minimum Royalties, which includes the previously paid-in-full Partial Prepayment of Future Royalties of [***] ($[***]) dollars and the

Confidential treatment has been requested with respect to portions of this agreement as indicated by "[***]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Phase III Initiation payment herein, and (ii) the Additional Advanced Minimum Royalty, the remaining Cumulative Royalties under the Agreement equals [***] ($[***]) dollars.

4. This 1st Amendment shall be governed by and interpreted according to the laws of the State of Delaware without regard for any choice or conflict of laws rule or provision.

5. In the event any provision of this 1st Amendment, in whole or in part, is determined to be invalid or unenforceable by a court of competent jurisdiction such provision shall be replaced, to the extent possible, with a provision which accomplishes the original business purpose and intent of the invalid or unenforceable provision. The remainder of this 1st Amendment will remain unaffected and in force.

IN WITNESS WHEREOF, the parties hereto have executed this 1st Amendment to Manufacturing Development and Scale-up Agreement by their duly authorized officers or representatives.

CHASM TECHNOLOGIES, INC.

BY: */s/ Robert F. Praino Jr*
Name: Robert F. Praino Jr
Title: Co-Founder, Sec/Treas

LIQUIDIA TECHNOLOGIES, INC.

BY: */s/ Shawn Glidden*
Name: Shawn Glidden
Title: VP Legal Affairs & Secretary

B&D HOLDINGS, INC.

BY: */s/ Robert F. Praino Jr*
Name: Robert F. Praino Jr
Title: Co-Founder, Sec/Treas

Exhibit 10.22

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This **AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT** (the "***Agreement***") is entered into effective January 31, 2018 (the "***Effective Date***"), by and between Neal Fowler (the "***Executive***") and Liquidia Technologies, Inc., a Delaware corporation (the "***Company***"). Each of the Company and Executive is a "***Party***" and, collectively, they are the "***Parties***."

The Company and Executive entered into an Executive Employment Agreement effective March 10, 2008 (the "***Prior Agreement***"); and

The Company and Executive have agreed to amend and restate the Prior Agreement as set forth in this Agreement to reflect certain adjustments to Executive's employment relationship with the Company.

Accordingly, in consideration of the mutual promises and covenants contained herein, the Parties agree to the following:

1. EMPLOYMENT BY THE COMPANY.

1.1 **At-Will Employment**. Executive shall be employed by the Company on an "at will" basis, meaning either the Company or Executive may terminate Executive's employment at any time, with or without cause or advance notice. Any contrary representations that may have been made to Executive shall be superseded by this Agreement. This Agreement shall constitute the full and complete agreement between Executive and the Company on the "at will" nature of Executive's employment with the Company, which may be changed only in an express written agreement signed by Executive and a duly authorized officer of the Company. Executive's rights to any compensation following a termination shall be only as set forth in Section 6.

1.2 **Position**. Subject to the terms set forth herein, the Company agrees to employ Executive in the position of Chief Executive Officer, and Executive hereby accepts such employment. Executive will report to the Board of Directors of the Company (the "***Board***") and/or such board members or committees designated by the Board. The Company shall use its best efforts to cause Executive to be elected to the Board during Executive's employment with the Company.

1.3 **Duties**. Executive shall faithfully perform all duties of the Company related to the position or positions held by Executive, including but not limited to all duties set forth in this Agreement and in the Bylaws of the Company related to the position or positions held by Executive, and all additional duties that are reasonably prescribed from time to time by the Board or other designated officers of the Company. Executive shall devote Executive's full business time and attention to the performance of Executive's duties and responsibilities on behalf of the Company and in furtherance of its best interests. Executive shall perform Executive's duties under this Agreement principally out of the Company's corporate headquarters in North Carolina. In addition, Executive shall make such business trips at the Company's expense to such places as may be necessary or advisable for the efficient operations of the Company.

1.4 **Company Policies**. Executive shall comply with all Company written policies, standards, rules and regulations (a "***Company Policy***" or collectively, the "***Company Policies***") and all applicable government laws, rules and regulations that are now or hereafter in effect. Executive acknowledges receipt of copies of all written Company Policies that are in effect as of the date of this Agreement. Notwithstanding the foregoing, in the event that the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement shall control.

2. COMPENSATION.

2.1 **Salary**. Executive shall receive a base salary of $480,000 on an annualized basis, payable subject to standard federal and state payroll withholding requirements in accordance with the Company's standard payroll practices ("***Base Salary***"). Executive's Base Salary may be increased from time to time by the Board. Notwithstanding anything to the contrary, the Base Salary may be reduced if the Board determines such reduction is necessary and justified by the financial condition of the Company and implements an equal percentage reduction in the base salaries of all of the Company's executive officers, but in no event will such reduction be greater than ten percent (10%) of the Base Salary. A reduction in Executive's Base Salary in accordance with the immediately preceding sentence shall not constitute a material diminution in Base Salary as described in Section 6.4(b) of this Agreement.

2.2 **Bonus**. During the period Executive is employed with the Company, Executive shall be eligible to earn for Executive's services to be rendered under this Agreement a discretionary annual cash bonus target equal to 50% of Base Salary ("***Bonus Target***"), subject to review and adjustment by the Company in its sole discretion, payable subject to standard federal and state payroll withholding requirements. Whether or not Executive earns any bonus will be dependent upon (a) Executive's continuous performance of services to the Company through the date any bonus is paid, except as set forth in Section 6.1(b) and Section 6.6 below; and (b) the actual achievement by Executive and the Company of the applicable performance targets and goals set by the Board in advance of, or within the first quarter of, each calendar year. The annual period over which performance is measured for purposes of this bonus is January 1 through December 31. The Board will determine in its reasonable discretion the extent to which Executive and the Company have achieved the performance goals upon which the bonus is based and the amount of the bonus, which could be above or below the Bonus Target (and may be zero). Any bonus shall be subject to the terms of any applicable incentive compensation plan adopted by the Company. Any bonus, if earned, will be paid to Executive within the time period set forth in the incentive compensation plan, or if no such time period was established, within two and one-half months following the end of the year during which the bonus is earned.

2.3 **Benefits**. Executive will be eligible to participate on the same basis as similarly situated employees in the Company's benefit plans in effect from time to time during Executive's employment. All matters of eligibility for coverage or benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to change, alter, or terminate any benefit plan in its sole discretion.

2.4 **Expense Reimbursement**. The Company shall reimburse Executive for all customary and appropriate business-related expenses actually incurred and documented in

accordance with Company Policy, as in effect from time to time. In addition, during Executive's employment, the Company agrees that it will provide Executive with payments related to his personal financial and estate planning in an amount not to exceed $2,500 per year ("***Financial Services Reimbursements***") which amount(s) shall be subject to applicable withholding and employment taxes and shall be paid within thirty (30) days after Executive provides proper documentation of such expenses. For the avoidance of doubt, to the extent that any reimbursements or (including but not limited to the Financial Services Reimbursements) payable to Executive are subject to the provisions of Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"): (a) any such reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, (b) the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and (c) the right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

3. PROPRIETARY INFORMATION, INVENTIONS, NON-COMPETITION AND NON-SOLICITATION OBLIGATIONS. The Parties have entered into a Confidentiality, Inventions and Non-Competition Agreement (the "***Confidential Information Agreement***"), which may be amended by the Parties from time to time without regard to this Agreement. The Confidential Information Agreement contains provisions that are intended by the Parties to survive and do survive termination of this Agreement.

3.1 **Permissible Communications**. Notwithstanding anything to the contrary in the Confidential Information Agreement, Executive acknowledges that nothing in the Confidential Information Agreement shall be construed to prohibit Executive from (a) filing a charge or complaint with, or participating in any proceeding before, a government agency authorized to enforce and investigate suspected violations of federal anti-discrimination laws, labor relations laws, occupational health and safety laws, wage and hour laws, and such similar state or local laws; (b) reporting possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, or (c) responding truthfully to inquiries from, or otherwise cooperating with, any governmental or regulatory investigation (the activities set forth in clauses (a) through (c) are collectively referred to as the "***Protected Activities***"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company; *provided*, *however*, that Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Proprietary Information under the Confidential Information Agreement to any parties other than the appropriate government agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications, and that any such disclosure without the Company's written consent shall constitute a material breach of this Agreement.

3.2 **Defend Trade Secrets Act.** Pursuant to the Defend Trade Secrets Act of 2016, Executive acknowledges that Executive will not have criminal or civil liability under any Federal or State trade secret law for the disclosure of a trade secret that (a) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in

a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney and may use the trade secret information in the court proceeding, if Executive (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

4. **OUTSIDE ACTIVITIES DURING EMPLOYMENT**. Except with the prior written consent of the Company, which shall not be unreasonably withheld, Executive will not, while employed by the Company, undertake or engage in any other employment, occupation or business enterprise that would interfere with Executive's responsibilities and the performance of Executive's duties hereunder, except for (i) reasonable time devoted to volunteer services for or on behalf of such religious, educational, non-profit and/or other charitable organization as Executive may wish to serve, (ii) reasonable time devoted to activities in the non-profit and business communities consistent with Executive's duties, (iii) reasonable time devoted to service on the board of directors of up to two (2) companies that are not competitive with the Company, and (iv) such other activities as may be specifically approved by the Company. This restriction shall not, however, preclude Executive from owning less than one percent (1%) of the total outstanding shares of a publicly traded company, or employment or service in any capacity with Affiliates of the Company. As used in this Agreement, "***Affiliates***" means an entity under common management or control with the Company.

5. **NO CONFLICT WITH EXISTING OBLIGATIONS**. Executive represents that Executive's performance of all the terms of this Agreement and as an executive of the Company do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

6. **TERMINATION OF EMPLOYMENT**. The Parties acknowledge that Executive's employment relationship with the Company is at-will. The provisions in this Section govern the amount of compensation, if any, to be provided to Executive upon termination of employment and do not alter this at-will status.

6.1 **Termination by the Company Without Cause**.

(a) The Company shall have the right to terminate Executive's employment with the Company pursuant to this Section 6.1 at any time without "Cause" (as defined in Section 6.2(b) below) by giving thirty (30) days' advance notice as described in Section 7.1 of this Agreement; *provided*, *however*, that the Company may elect for you to be on leave or to perform modified duties at any time between the date of notice and the date of termination. A termination pursuant to Sections 6.3 and 6.5 below is not a termination without "Cause" for purposes of receiving the benefits described in this Section 6.1.

(b) If the Company terminates Executive's employment at any time without Cause and provided that such termination constitutes a "separation from service" (as defined

under Treasury Regulation Section 1.409A-1(h) a "***Separation from Service***"), then Executive shall be entitled to receive the Accrued Obligations (defined below) and, subject to Executive's compliance with the obligations in Section 6.1(c) below, then Executive shall also be entitled to receive (collectively, the "***Severance Benefits***"):

(i) an amount equal to Executive's then current Base Salary for twelve (12) months (the "***Severance Period***"), less all applicable withholdings and deductions, paid in equal installments beginning on the Company's first regularly scheduled payroll date following the Release Effective Date (as defined in Section 6.1(c) below), with the remaining installments occurring on the Company's regularly scheduled payroll dates thereafter;

(ii) an amount equal to the bonus that Executive would have earned pursuant to Section 2.2 if Executive had remained employed through the end of the applicable fiscal year in which the termination date occurs, pro-rated based on the number of days that Executive was employed with the Company during the applicable fiscal year, payable on the date that such bonus is paid to the Company's other executives; and

(iii) payment of the employer portion of the premiums required to continue Executive's group health care coverage under the applicable provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985 ("***COBRA***"), provided that Executive timely elects to continue coverage under COBRA, until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A), (B) or (C), the "***COBRA Payment Period***"). Notwithstanding the foregoing, if at any time the Company determines in its sole discretion that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code, or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings for the remainder of the COBRA Payment Period, regardless of whether Executive elects COBRA coverage (the "***Special Severance Payment***"). Executive may, but is not obligated to, use such Special Severance Payment toward the cost of COBRA premiums. If Executive becomes eligible for coverage under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Payment Period, Executive must immediately notify the Company of such event, and all payments and obligations under this clause will cease.

(c) Executive will be paid all of the Accrued Obligations on the Company's first payroll date after Executive's date of termination from employment or earlier if required by law. Executive shall receive the Severance Benefits pursuant to Section 6.1(b) of this Agreement if: (i) Executive signs and delivers to the Company an effective, general release of claims in favor of the Company and its affiliates and representatives, in a form acceptable to the Company (the "***Release***"), by the 60th day following the termination date or such earlier date as set forth in the Release, which cannot be revoked in whole or part (if applicable) by such date or such earlier

date as set forth in the Release (the date that the Release can no longer be revoked is referred to as the "***Release Effective Date***"); (ii) if Executive holds any other positions with the Company, Executive resigns such position(s) to be effective no later than the date of Executive's termination date (or such other date as requested by the Board); (iii) Executive returns all Company property in proper order and condition, reasonable wear and tear excepted, (including, but not limited to, all books, documents, papers, materials and any other property or assets relating to the business or affairs of the Company which may be in Executive's possession or under his control but excluding copies of records related to Executive's compensation from the Company and any equity ownership in the Company); (iv) Executive complies with all post-termination obligations under this Agreement and the Confidential Information Agreement; and (v) Executive complies with the terms of the Release, including without limitation any non-disparagement and confidentiality provisions contained in the Release. Upon termination of this Agreement and Executive's employment hereunder for any reason by either Party, Executive shall also be deemed to have resigned as a member of the Board. To the extent that any Severance Benefits are deferred compensation under Section 409A of the Code, and are not otherwise exempt from the application of Section 409A, then, if the period during which Executive may consider and sign the Release spans two calendar years, the payment of Severance Benefits will not be made or begin until the later calendar year.

(d) For purposes of this Agreement, "***Accrued Obligations***" are (i) Executive's accrued but unpaid salary through the date of termination, (ii) any unreimbursed business expenses incurred by Executive payable in accordance with the Company's standard expense reimbursement policies, and (iii) benefits owed to Executive under any qualified retirement plan or health and welfare benefit plan in which Executive was a participant in accordance with applicable law and the provisions of such plan.

(e) The Severance Benefits provided to Executive pursuant to this Section 6.1 is in lieu of, and not in addition to, any benefits to which Executive may otherwise be entitled under any Company severance plan, policy or program.

(f) Any damages caused by the termination of Executive's employment without Cause would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.2 **Termination by the Company for Cause**.

(a) Subject to Section 6.2(c) below, the Company shall have the right to terminate Executive's employment with the Company at any time for Cause by giving notice as described in Section 7.1 of this Agreement.

(b) "***Cause***" for termination shall mean that Executive has engaged in any of the following: (i) any material breach of the terms of this Agreement by Executive, or the willful failure of Executive to diligently and properly perform Executive's material duties for the Company; (ii) Executive's misappropriation or unauthorized use of the Company's tangible or intangible property that causes or is likely to cause material harm to the Company or its reputation, or material breach of the Confidential Information Agreement or any other similar agreement

regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (iii) any material failure to comply with the Company Policies or any other policies and/or directives of the Board; (iv) Executive's use of illegal drugs or any illegal substance, or Executive's use of alcohol in any manner that materially interferes with the performance of Executive's duties under this Agreement; (v) any dishonest or illegal action (including, without limitation, embezzlement) or any other action, whether or not dishonest or illegal, by Executive which is willful and materially detrimental to the interest and well-being of the Company, including, without limitation, harm to its reputation; (vi) Executive's failure to fully disclose any material conflict of interest Executive may have with the Company in a transaction between the Company and any third party which is materially detrimental to the interest and well-being of the Company; (vii) any willful adverse action or omission by Executive which would be required to be disclosed pursuant to public securities laws or which would limit the ability of the Company or any entity affiliated with the Company to sell securities under any Federal or state law or which would disqualify the Company or any affiliated entity from any exemption otherwise available to it; or (viii) Executive's material violation of the Company's Policies prohibiting unlawful harassment, discrimination, retaliation, or workplace violence; *provided, however*, that prior to any termination of Executive for "Cause," if the grounds for such Cause are reasonably capable of cure by Executive, the Company shall provide Executive with written notice of the grounds for Cause and provide Executive with thirty (30) business days in which to cure such Cause. Provided further that no act or failure to act on Executive's part shall be considered "willful" unless the Board determines it was done, or was omitted to be done, by Executive in bad faith or in a manner that Executive could not have reasonably believed to be in the best interest of the Company.

(c) In the event Executive's employment is terminated at any time for Cause, Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.3 **Resignation by Executive.**

(a) Executive may resign from Executive's employment with the Company at any time by giving thirty (30) days' advance notice as described in Section 7.1, *provided* that the Company may set a termination date at any time between the date of notice and the date of resignation, in which case Executive's resignation shall be effective as of such other date. Executive will receive compensation through any required notice period.

(b) In the event Executive resigns from Executive's employment with the Company for any reason (other than a resignation for Good Reason as described in Section 6.4 below), Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.4 **Resignation by Executive for Good Reason.**

(a) Provided Executive has not previously been notified of the Company's intention to terminate Executive's employment, Executive may resign from employment with the Company for Good Reason (as defined in Section 6.4(b) below).

(b) "***Good Reason***" for resignation shall mean the occurrence of any of the following without Executive's prior consent: (i) a material diminution in Executive's authority, duties or responsibilities; (ii) a material diminution in Executive's Base Salary or Bonus Target; (iii) a requirement that Executive report to a corporate officer or employee instead of reporting directly to the Board; (iv) Executive's principal place of employment is relocated by more than twenty-five (25) miles from the Company's present location in Research Triangle Park, North Carolina; or (v) the Company materially breaches its obligations under this Agreement. In addition to any requirements set forth above, in order for any of the above events to constitute "Good Reason," Executive must (X) inform the Company of the existence of the event within sixty (60) days of the initial existence of the event, after which date the Company shall have no less than thirty (30) days to cure the event which otherwise would constitute "Good Reason" hereunder and (Y) Executive must terminate his employment with the Company for such "Good Reason" no later than ninety (90) days after the initial existence of the event which prompted Executive's termination. Any actions taken by the Company to accommodate a disability of Executive or pursuant to the Family and Medical Leave Act shall not be a Good Reason for purposes of this Agreement.

(c) In the event Executive resigns from Executive's employment for Good Reason, and provided that such termination constitutes a Separation from Service, then subject to Executive's compliance with the obligations in Section 6.1(c) above, Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1 and on the same terms and conditions set forth in Section 6.1(c) and Section 6.1(e) as if Executive had been terminated by the Company without Cause.

(d) Any damages caused by the termination of Executive's employment for Good Reason would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.5 **Termination by Virtue of Death or Disability of Executive.**

(a) In the event of Executive's death while employed pursuant to this Agreement, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

(b) Subject to applicable state and federal law, the Company shall at all times have the right, upon written notice to Executive, to terminate this Agreement based on Executive's Disability. Termination by the Company of Executive's employment based on "***Disability***" shall mean termination because a qualified medical doctor mutually acceptable to the Company and Executive or Executive's personal representative has certified in writing that:

(A) Executive is unable, because of a medically determinable physical or mental disability, to perform the essential functions of Executive's job, with or without a reasonable accommodation, for more than one hundred and eighty (180) calendar days measured from the last full day of work; or (B) by reason of mental or physical disability, it is unlikely that Executive will be able, within one hundred and eighty (180) calendar days, to resume the essential functions of Executive's job, with or without a reasonable accommodation, and to otherwise discharge Executive's duties under this Agreement. This definition shall be interpreted and applied consistent with the Americans with Disabilities Act, the Family and Medical Leave Act, and other applicable law. In the event Executive's employment is terminated based on Executive's Disability, Executive will not receive Severance Benefits or any other severance compensation or benefit, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.6 **Change in Control Benefits.** In the event the Company (or any surviving or acquiring corporation) terminates Executive's employment without Cause or Executive resigns for Good Reason within twelve (12) months following the effective date of a Change in Control (as defined under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as may be amended from time to time by the Company (the "***Plan***")), then Executive shall be entitled to the Accrued Obligations and, provided that Executive complies with the obligations in Section 6.1(c) of this Agreement (including the requirement to provide an effective Release), Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1(b) and on the same conditions as if Executive had been terminated by the Company without Cause; *provided, however,* that (a) the Severance Period shall be increased to eighteen (18) months; (b) the bonus set forth in Section 6.1(b)(ii) shall instead equal 50% of Base Salary multiplied by 1.5; and (c) in the event that Executive's outstanding equity as of the closing of the Change in Control is assumed or continued (in accordance with its terms) by the surviving entity in a Change in Control, then 100% of the unvested portion of such equity shall become vested.

6.7 **Cooperation With Company After Termination of Employment**. Following termination of Executive's employment for any reason and for a period of one (1) year thereafter, Executive agrees to cooperate (a) with the Company in (i) the defense of any legal matter involving any matter that arose during Executive's employment with the Company, and (ii) all matters relating to the winding up of Executive's pending work and the orderly transfer of any such pending work to such other employees as may be designated by the Company; and (b) with all government authorities on matters pertaining to any investigation, litigation or administrative proceeding pertaining to the Company. The Company will reimburse Executive for any reasonable travel and out of pocket expenses incurred by Executive in providing such cooperation. The Company will also pay Executive a per diem amount equal to Executive's Base Salary as of the date of termination divided by two hundred and thirty (230) for each day or partial day that Executive devotes to fulfilling his obligation to cooperate under this Section 6.7, unless Executive is then receiving continued payment of his Base Salary under 6.1(b)(ii), above. Following termination of Executive's employment for any reason, and in the event of a failure by Executive (following reasonable efforts by the Company to secure his voluntary cooperation) to resign from any position as officer or director of the Company, with such resignation to be effective no later than the date of Executive's termination date (or such other date as requested by the Board), the Company is hereby irrevocably authorized to appoint its then-current Chief Executive Officer to act in Executive's name and on his behalf to execute any documents and to

do all things reasonably necessary to effect such resignation. Further, Executive shall not, at any time after termination of Executive's employment for any reason, represent himself as being an agent or representative of the Company, unless expressly authorized in a written agreement executed by an authorized officer of the Company.

6.8 **Application of Section 409A**.

(a) It is intended that all of the severance payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively, "***Section 409A***") provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9), and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms.

(b) The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Executive under this Agreement. In the event that the terms of this Agreement would subject Executive to any additional tax, penalty or interest under Section 409A (the "***409A Penalties***"), the Company and Executive shall cooperate in good faith to amend the terms of this Agreement to avoid such 409A Penalties, if possible. The Company shall not be liable to Executive for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A.

(c) No severance payments will be made under this Agreement unless Executive's termination of employment constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

(d) For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Executive's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

(e) If the Company determines that the severance benefits provided under this Agreement constitutes "deferred compensation" under Section 409A and if Executive is a "specified employee" of the Company, as such term is defined in Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation from Service, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Severance Benefits will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's Separation from Service, and (ii) the date of Executive's death (such earlier date, the "***Delayed Initial Payment Date***"), the Company will (1) pay to Executive a lump sum amount equal to the sum of the Severance Benefits that Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Severance Benefits had not been delayed pursuant to this Section 6.8, and (2) commence paying the balance of the Severance Benefits in accordance with the applicable

payment schedule set forth in Section 6.1. No interest shall be due on any amounts deferred pursuant to this Section 6.8.

6.9 **Parachute Payments**.

(a) Notwithstanding any other provisions of this Agreement to the contrary, in the event that it shall be determined that any payment or distribution to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "***Payment***") would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, the Company shall reduce the aggregate present value of the Payments under this Agreement to the Reduced Amount (as defined below) if, and only if, reducing the Payments under this Agreement will provide Executive with a greater net after-tax amount than would be the case if no such reduction was made, taking into account the applicable federal, state, local and foreign income, employment and other taxes, including the excise tax imposed by Section 4999 of the Code. If a reduction in the Payments is necessary, such reduction shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. Within any such category of payments and benefits (that is, clauses (1), (2), (3) or (4) of this Section 6.9(a)), a reduction shall occur first with respect to amounts that are not "deferred compensation" within the meaning of Section 409A of the Code and then with respect to amounts that are. The "***Reduced Amount***" shall be an amount expressed in present value that maximizes the aggregate present value of Payments under this Agreement without causing any Payment to be nondeductible by the Company because of Section 280G of the Code.

(b) All determinations to be made under this Section 6.9 shall be made at the Company's expense by a firm of certified public accountants of national standing selected by the Company (the "***Accounting Firm***") which may be the firm regularly auditing the financial statements of the Company. The Company and Executive shall furnish to the Accounting Firm such information and documents as the Accounting Firm may reasonably require in order to make a determination under this Section. To the extent requested by Executive, the Company shall cooperate with Executive in good faith in valuing, and the Accounting Firm shall value, services to be provided by Executive (including refraining from performing services pursuant to a covenant not to compete) before, on or after the date of the transaction which cause the application of Section 280G of the Code such that payments in respect of such services may be considered to be "reasonable compensation" within the meaning of the regulations under Section 280G of the Code. In making its determinations hereunder, the Accounting Firm shall apply reasonable, good faith interpretations regarding the applicability of Section 280G and Section 4999, along with any other applicable portions of the Code or other tax laws. The Accounting Firm shall make all determinations required to be made under this Section and shall provide detailed supporting calculations to the Company and Executive within 30 days after the Termination Date or such earlier time as is requested by the Company, and provide an opinion to Executive that he or she has substantial authority not to report any excise tax on his or her Federal income tax return with respect to any Payments. Any such determination by the Accounting Firm shall be binding upon the Company and Executive. Subject to Sections 6.1(c) and 6.9, within five business days thereafter, the Company shall pay to or distribute to or for the benefit of Executive such amounts as are then due to Executive under this Agreement.

(c) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Accounting Firm or the Company hereunder, it is possible that Payments, as the case may be, will have been made by the Company which should not have been made ("***Overpayment***") or that additional Payments, as the case may be, which will not have been made by the Company could have been made ("***Underpayment***"), in each case, consistent with the calculations required to be made hereunder. In the event that the Accounting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against Executive which the Accounting Firm believes has a high probability of success determines that an Overpayment has been made, promptly on notice and demand Executive shall repay to the Company any such Overpayment paid or distributed by the Company to or for the benefit of Executive together with interest at the applicable Federal rate provided for in Section 7872(f)(2)(A) of the Code; provided, however, that no such amount shall be payable by Executive to the Company if and to the extent such payment would not either reduce the amount on which Executive is subject to tax under Section 1 and Section 4999 of the Code or generate a refund of such taxes. In the event that the Accounting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2)(A) of the Code.

7. GENERAL PROVISIONS.

7.1 **Notices**. Any notices required hereunder to be in writing shall be deemed effectively given: (a) upon personal delivery to the Party to be notified, (b) when sent by electronic mail or confirmed facsimile if sent during normal business hours of the recipient, and if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at its primary office location and to Executive at Executive's address as listed on the Company payroll, or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other.

7.2 **Severability**. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.3 **Survival.** Provisions of this Agreement which by their terms must survive the termination of this Agreement in order to effectuate the intent of the Parties will survive any such termination, whether by expiration of the term, termination of Executive's employment, or otherwise, for such period as may be appropriate under the circumstances.

7.4 **Waiver**. If either Party should waive any breach of any provisions of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 **Complete Agreement**. This Agreement constitutes the entire agreement between Executive and the Company with regard to the subject matter hereof. This Agreement is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter and supersedes any prior oral discussions or written communications and agreements, including the Prior Agreement. This Agreement is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in writing signed by Executive and an authorized officer of the Company, subject to the approval of the Board, its compensation committee or (if necessary) the stockholders of the Company. The Parties have entered into a separate Confidential Information Agreement and have entered or may enter into separate agreements related to equity. These separate agreements govern other aspects of the relationship between the Parties, have or may have provisions that survive termination of Executive's employment under this Agreement, may be amended or superseded by the Parties without regard to this Agreement and are enforceable according to their terms without regard to the enforcement provision of this Agreement.

7.6 **Headings**. The headings of the sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.7 **Successors and Assigns**. The Company shall assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any company or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said Company or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a Party, but may not otherwise assign this Agreement or its rights and obligations hereunder. Executive may not assign or transfer this Agreement or any rights or obligations hereunder, other than to Executive's estate upon death.

7.8 **Withholding**. All amounts payable hereunder shall be subject to applicable tax withholding.

7.9 **Choice of Law**. This Agreement in all respects shall be governed by and interpreted in accordance with the laws of the State of North Carolina, both procedural and substantive, without regard to conflicts of law, except to the extent that federal laws and regulations preempt otherwise applicable law.

7.10 **Mandatory Mediation.** Prior to and as a condition of either Party's filing suit in state or federal court, the Parties shall engage in a mediated settlement conference in accordance with the North Carolina Superior Court Rules Implementing Statewide Mediation. The Parties shall mediate in good faith until settlement is reached or an impasse is declared by the mediator.

7.11 **Jurisdiction.** Each Party hereby irrevocably submits to the exclusive jurisdiction of the United States District Court located in Wake County, North Carolina, or any state court located within such state, in respect of any claim relating to this Agreement or Executive's employment with the Company, and hereby waives, and agrees not to assert, as a defense in any action, suit or proceeding in which any such claim is made that said Party is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in such courts or that the venue thereof may not be appropriate or that this Agreement may not be enforced in or

by such courts. Any appellate proceedings shall take place in the appropriate courts having appellate jurisdiction over the courts set forth in this Section.

7.12 **Counterparts**. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one Party, but all of which taken together will constitute one and the same Agreement. Facsimile signatures and signatures transmitted by PDF shall be equivalent to original signatures.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first written above.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Dr. Seth Rudnick
Name: Dr. Seth Rudnick
Title: Chairman of the Board

Executive:

/s/ Neal Fowler
Neal Fowler

Exhibit A

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

THIS CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT (this "**Agreement**") is effective as of DATE (the "**Effective Date**") by and between NAME (hereinafter "**Employee**") and Liquidia Technologies, Inc. (the "**Company**").

STATEMENT OF PURPOSE

The Employee desires to be employed by the Company, and the Company is willing to employ Employee strictly subject to Employee's agreement to be bound by the terms of this Agreement.

IN CONSIDERATION of the Company's employment of the Employee and the compensation and other benefits that the Company may provide to Employee as an employee, the Employee, intending to be legally bound, agrees to the following:

1. For purposes of this Agreement, "**Proprietary Information**" is information (whether in written or other form or whether or not patentable or protectable by copyright, trade secret, trade dress, trademark, or the like) that: (i) has been created, invented, discovered, or developed by the Employee in connection with the Employee's employment by the Company; (ii) is non-public and has been disclosed, furnished, or communicated to the Employee in connection with the Employee's employment by the Company; or (iii) is non-public and the unauthorized disclosure of which could be detrimental to the interests of the Company. Proprietary Information includes, but is not limited to, all inventions, works of authorship, trade secrets, know how, proprietary or confidential information, including, but not limited to, research, product or business plans, products, services, projects, proposals, processes, formulas, ideas, data, compositions, technology, computer programs and related source code and object code, developments, designs, drawings, marketing information and plans, customer lists, budgets, projections, partners, cost analyses, acquisition candidates, relevant parts of analysis, reviews, compilations, studies or other records and documents, and other information owned by the Company, disclosed to the Employee, or to which the Employee has been provided access or gains access, either directly or indirectly, by any means. Proprietary Information does not include information that is or becomes generally available to the public other than as a result of a disclosure by the Employee or by any other person or entity that is under a confidentiality obligation to Company with respect to such information.

2. Nondisclosure of Proprietary Information.

2.1 The Employee acknowledges and agrees that Proprietary Information is the sole property of the Company or its designee and that the Employee shall have no right,

title, license, or interest in or to any Proprietary Information. During and after the Employee's employment by the Company, the Employee shall keep in the strictest confidence and trust all Proprietary Information and shall not directly or indirectly disclose, distribute, copy, supply, or use, in whole or in part, any Proprietary Information except as approved in advance in writing by the Company. Notwithstanding the foregoing, it is understood that, at all such times, the Employee is free (i) to use information which was known to the Employee prior to employment with the Company or which is generally known in the trade or industry through no breach of this Agreement or other act or omission by the Employee, (ii) to discuss the terms of the Employee's employment, wages and working conditions to the extent expressly protected by applicable law, (iii) to report possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, (iv) to respond to inquiries from, or otherwise cooperate with, any governmental or regulatory investigation, or (v) to testify truthfully as compelled by lawful process or subpoena related to such testimony after the Employee has provided advance written notice of said subpoena to the Company's Chief Executive Officer and reasonably cooperates with the Company in any process to oppose said subpoena.

2.2 The Employee shall not use or disclose to the Company, or assist in the disclosure to the Company of, proprietary or confidential information belonging to any third parties, including any prior employer(s).

2.3 The Employee acknowledges and agrees that the Company has received and in the future may receive from third parties, including, but not limited to, potential collaborating partners or customers of the Company, confidential or proprietary information ("**Third Party Information**") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of the Employee's employment with the Company and thereafter, the Employee will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel or the Company's designee who need to know such information in connection with their work for the Company or such third party) or use Third Party Information, except in connection with the Employee's work for the Company or such third party, unless expressly approved in advance in writing by the Company. The Employee further agrees to be bound by and subject to any confidentiality or nondisclosure agreements or clauses with respect to such Third Party Information between the Company and any such third party.

2.4 Pursuant to the Defend Trade Secrets Act of 2016, the Employee acknowledges that the Employee will not have criminal or civil liability under any federal or state trade secret law for the disclosure of a trade secret that (i) is made (a) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and (b) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if the Employee files a lawsuit for retaliation by the Company for reporting a suspected violation of law, the Employee may

disclose the trade secret to the Employee's attorney and may use the trade secret information in the court proceeding, if the Employee (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

3. Upon the earliest to occur of (i) termination of the Employee's employment by the Company for any reason, (ii) termination of the Employee's access to Proprietary Information, or (iii) the request of the Company, the Employee shall return to the Company (and will not keep in Employee's possession or control or deliver to anyone else) all materials belonging to the Company, whether kept at the Employee's business office, personal residence or otherwise, including, but not limited to, all materials containing or relating to any Proprietary Information in any written, tangible, electronic or other form that the Employee may have in Employee's possession or control, and any and all mobile telephones, personal digital assistants, pagers, computer and other electronic devices and credit cards. After returning the materials and equipment described in the preceding sentence to the Company, the Employee shall not retain any copies of any such materials.

4. Ownership of Proprietary Information.

4.1 All Proprietary Information and other information, which by its nature is proprietary to the Company, relating to the Company's business or the Company's anticipated business, or based on, derived from or relating to any Proprietary Information (collectively, Proprietary Information and "**Work Product**") shall be the sole property of the Company. The Employee agrees that all Proprietary Information and Work Product created, conceived, reduced to practice, made or otherwise developed by the Employee, solely or jointly, during and in any way related to the Employee's employment, shall be the exclusive property of the Company and/or its designees or assignees, and shall be deemed "works made for hire," as that term is defined in Section 101 of the U.S. Copyright Act of 1976, as amended.

4.2 If, for any reason, any Proprietary Information and Work Product does not qualify as works made for hire, the Employee shall assign and does hereby irrevocably, unconditionally, and without encumbrance of any kind assign to the Company, and forever waives and agrees never to assert, all right, title, and interest, including without limitation, all patent, trademark, copyright, trade secret, and other intellectual property (collectively, "**Intellectual Property**") rights, in and to such Proprietary Information and Work Product. The Employee shall assist the Company, or its designee, in every proper way to secure the Company's rights in the Proprietary Information and Work Product and any Intellectual Property rights relating thereto in any and all countries, including (i) the disclosure to the Company of all pertinent information and data with respect thereto, (ii) the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company or its designee the sole and exclusive right, title and interest in and to the Proprietary Information and Work Product, and (iii) the defense of any claim, demand, action, litigation, suit, or other proceeding,

including, but not limited to, interference, cancellation, opposition, or other proceedings in respect of such applications or any registrations or patents issuing therefrom. The Employee shall continue such assistance after the termination of the Employee's employment by the Company.

4.3 During the Employee's employment by the Company, the Employee shall report promptly to the Company all Proprietary Information and Work Product created, conceived, reduced to practice, or otherwise developed by the Employee, solely or jointly.

4.4 If the Company is unable because of the Employee's mental or physical incapacity or for any other reason to secure the Employee's signature to apply for or to secure protection of any Proprietary Information and Work Product, then the Employee hereby designates and appoints the Company and its duly authorized officers and agents as its agents and attorneys-in-fact to execute and file any certificates, applications or documents and to do all of their lawful acts necessary to perfect and protect the Company's rights in the Proprietary Information and Work Product. The Employee expressly acknowledges that the foregoing power of attorney is coupled with an interest and is therefore irrevocable and shall survive the Employee's death or incompetency and the termination of the Employee's employment or engagement by the Company.

4.5 The Employee hereby represents and warrants that the Employee has fully disclosed to the Company on Schedule A attached hereto any idea, invention, discovery or process relating to the Company's business which, prior to the Employee's employment with the Company, the Employee conceived, reduced to practice, or developed, individually or jointly, and is to be excluded from the scope of this Agreement.

4.6 Notwithstanding anything in this Agreement to the contrary, the obligation of the Employee to assign or offer to assign the Employee's rights in an invention to the Company shall not extend or apply to an invention that the undersigned developed (i) entirely on the Employee's own time; (ii) without using Company equipment, supplies, facilities, or other resources, Proprietary Information or trade secret information unless such invention (a) relates to the Company's business or actual or demonstrably anticipated research or development, or (b) results from any work performed by the Employee for the Company. The Employee shall bear the burden of proof in establishing that the Employee's invention qualifies for exclusion under this Section 4.6.

5. Covenant Not To Compete.

5.1 For purposes of Part 5 of this Agreement, including each of its subparts, the following terms shall have the following meanings:

a. "**Competing Business**" shall mean any corporation, partnership, person, or other entity that is researching, developing, manufacturing, marketing, distributing, or selling any product, service, or technology that is competitive with any part of the Company's Business.

b. The "**Company's Business**" shall mean the development, manufacture, marketing, distribution, or sale of, including research directed to, any product, service, or technology that the Company is developing, manufacturing, marketing, distributing, or selling or to which the Company directed research at any time during Employee's employment with the Company. As of the date of this Agreement, the Company's Business includes, but is not limited to, research directed to and the development, manufacture, marketing, distribution, and/or sale of: (i) isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold; (ii) size and/or shape controllable pharmaceutical or therapeutic particles molded using a polymer or low surface energy mold; (iii) film based products of or containing arrays of size and/or shape controlled structures molded from a low surface energy mold; (iv) isolated nano or micro size and/or shape controlled particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled particles fabricated from a mold; (v) nano or micro size and/or shape controllable particles molded using a polymer or low surface energy mold; or (vi) patterned drum

fabrication and mold for manufacturing the products of (i)-(v) above. The Employee understands that during the Employee's employment with the Company, the Company's Business may expand or change, and the Employee agrees that any such expansions or changes shall expand or contract the definition of the Company's Business and the Employee's obligations under this Agreement accordingly.

c. "**Territory**" shall mean the following severable geographic areas: (i) the world, (ii) any country in which the Company or a Competing Business is engaged in business, (iii) any country in which the Company is engaged in business, (iv) the United States, Europe, and Asia, (v) the United States, (vi) any state, including the District of Columbia, in which the Company or a Competing Business is engaged in business, (vii) any state, including the District of Columbia, in which the Company is engaged in business, (viii) North Carolina, (ix) a one hundred mile radius of the Employee's principal place of employment or work for the Company, or (x) a one hundred mile radius of the Company's corporate headquarters.

5.2 It is recognized and understood by the Employee that, through the Employee's association with the Company, the Employee shall: (i) have access to trade secrets and confidential information of the Company, including, but not limited to, valuable information about its intellectual property, business operations and methods, and the persons with which it does business in various locations throughout the world, that is not generally known to or readily ascertainable by the Company's competitors, (ii) develop relationships with the Company's customers and others with which the Company does business, and these relationships are among the Company's most important assets, (iii) receive specialized knowledge of and specialized training in the Company's Business, and (iv) gain such knowledge of the Company's Business that, during the course of the Employee's employment with the Company and for a period of one year following the termination thereof, the Employee could not perform services for a Competing Business

without inevitably disclosing the Company's trade secrets and Proprietary Information to that Competing Business.

5.3 While employed by the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise) for any Competing Business, (ii) engage in any activities (or assist others to engage in any activities) that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing or prospective customers, suppliers, business partners, or contractors of the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (v) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company.

5.4 For a period of one year following the termination of the Employee's employment with the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise), within the Territory for any Competing Business, that are the same or substantially similar to any services that the Employee performed for the Company or that otherwise utilize skills, knowledge, and/or business contacts and/or relationships that the Employee developed while providing services to the Company, (ii) engage in any activities (or assist others to engage in any activities) within the Territory that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or any prospective customers to whom the Company has made a written proposal ("Prospective Customers"), suppliers, business partners, or contractors of the Company, during the last year of the Employee's employment with the Company, to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, (v) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or Prospective Customers, suppliers, business partners, or contractors of the Company with which the Employee worked or had business contact during the last year of the Employee's employment with the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (vi) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company. Where a Competing Business is a large enterprise with separately operated business units, the restrictions in Section 5.4(i) shall not apply to any such business unit that has no involvement in the research, development, manufacture, marketing, distribution, or sale of a product, service, or technology that is competitive with any part of the Company's Business; *provided, however*, that this sentence does not apply to any employees in a scientific role or whose role involves the research, development or maintenance of the Company's trade secrets. These obligations will continue for the specified period regardless of whether the termination of the Employee's

employment was voluntary or involuntary or with or without cause, and the specified period shall be tolled and shall not run during any time in which the Employee fails to abide by this obligations.

5.5 The Employee shall not at any time following the termination of the Employee's employment with the Company use the name or trading style of the Company in any country, or use in any country any name or trading style which is the same as or similar to any of the trade or service marks of the Company or any brand name or proposed brand name of any of the Company's products or proposed products, or represent himself or herself as carrying on or continuing or being connected with the Company or its business for any purpose whatsoever unless otherwise agreed by the Company in writing.

5.6 While employed by the Company, the Employee shall disclose to the audit committee of the Company the Employee's interest in respect of any contract or arrangement in which the Employee has any personal material interest, directly or indirectly, or any conflicts of interest (including the conflict of interest that may arise from the Employee's directorship(s) or executive position or personal investments in any corporation(s)) that may involve the Employee. Upon such disclosure, the Employee shall abstain from voting in respect of any such contract, arrangement, proposal, transaction, or matter in which the conflict of interest arises, unless and until the audit committee has determined that no such conflict of interest exists.

5.7 As an exception to the restrictions set forth in Parts 5.3 and 5.4 herein, the Employee may own passive investments in a Competing Businesses, (including, but not limited to, indirect investments through mutual funds), provided that the securities of the Competing Business are publicly traded and the Employee does not own or control more than two percent of the outstanding voting rights or equity of the Competing Business.

5.8 In the event that a court determines that the length of time, the geographic area, or the activities prohibited under this Agreement are too restrictive to be enforceable, the Court may reduce the scope of the restriction to the extent necessary to make the restriction enforceable.

5.9 The market for the Company's services and the Company's Business is highly specialized and highly competitive such that other companies and business entities compete with the Company in various locations throughout the world. The provisions set forth in this Agreement: (i) are reasonably necessary to protect the Company's legitimate business interests, (ii) are reasonable as to the time, territory, and scope of activities that are restricted, (iii) do not interfere with the Employee's ability to earn a comparable living or secure employment in the field of the Employee's choice, (iv) do not interfere and are not inconsistent with public policy or the public interest, and (v) are described with sufficient accuracy and definiteness to enable the Employee to understand the scope of the restrictions on the Employee.

5.10 Because of the unique nature of the Proprietary Information, the Employee understands and agrees that the Company will suffer irreparable harm in the event that the Employee fails to comply with any of the Employee's obligations under this Agreement and that monetary damages will be inadequate to compensate the Company for such breach. Accordingly, the Employee agrees that the Company will, in addition to any other remedies available to it at law or in equity, be entitled to injunctive relief to enforce the terms of this Agreement.

6. The Employee hereby authorizes the Company to provide a copy of this Agreement, including any exhibits hereto, to any and all of the Employee's future employers and to notify any and all such future employers that the Company intends to exercise its legal rights arising out of or in connection with this Agreement and/or any breach or any inducement of a breach hereof.

7. The Employee agrees that, during the term of the Employee's employment with the Company, the Employee will not: (i) engage in any other employment, occupation, consulting, or other business activity that conflicts with the Employee's obligations to the Company, or (ii) engage in any other activities that conflict with the Employee's obligations to the Company.

8. Debarment Certification

8.1 The Employee represents and promises that Employee:

(a) is not presently, and during the Employee's employment will not be, debarred or convicted for a crime for which Employee can be debarred under the Generic Drug Enforcement Act of 1992 (21USC335a)(the "**Act**"); and

(b) is not presently, and during the Employee's employment will not be, indicted or otherwise criminally or civilly charged by a government entity (Federal or State) with commission of the kinds of conduct for which Employee can be debarred under the Act; and

(c) will not employ or otherwise engage any individual who has been (i) debarred or (ii) convicted of a crime for which a person can be debarred under the Act, in any capacity in connection with the activities of developing or reporting data which may become part of an application for approval of a drug or biologic.

8.2 The Employee promises that, during the Employee's employment with the Company, the Employee will promptly notify the Company upon learning of or having a belief that the Employee cannot satisfy the obligations of Section 8.1 above.

9. The Employee agrees that this Agreement shall be enforced, construed and interpreted under the law of the state of North Carolina, without regard to the conflicts of laws principles thereof. The state and federal courts in North Carolina shall be the exclusive venues for the adjudication of all disputes arising out of this Agreement, and the Employee consents to the exercise of personal jurisdiction over the Employee in any such adjudication and hereby waives any and all objections and defenses to the exercise of such personal jurisdiction.

10. The Employee agrees that: (i) the Employee's employment relationship with the Company is "at-will," which means that either the Employee or the Company can terminate the relationship at any time for any reason or no reason, with or without notice, unless the Employee and the Company are parties to a contract that expressly provides a fixed term of employment, (ii) the Employee's employment relationship with the Company is contingent upon the Employee's execution of this Agreement, which is a material inducement to the Company to offer the employment relationship to the Employee and to provide Proprietary Information to the Employee, and (iii) this Agreement shall survive any termination for any reason whatsoever of the Employee's employment relationship with the Company.

11. The Employee agrees that the Company's failure to insist upon strict compliance with any provision of this Agreement shall not be deemed a waiver of such provision or of any other provision in the Agreement. The provisions of this Agreement shall be enforceable, notwithstanding the existence of any breach of this Agreement by the Company or of any claim by the Employee against the Company, whether predicated on this Agreement or otherwise.

12. This Agreement contains the entire understanding between the parties with respect to the subject matter hereof and supersedes all prior or contemporary agreements or understandings, whether written or oral, with respect thereto, provided, however, prior to the execution of this Agreement, if Company and the Employee were parties to any agreement regarding the subject matter hereof, that agreement will be superseded by this Agreement prospectively only. This Agreement may not be modified or amended except by an agreement in writing signed by both parties.

13. The Employee agrees that this Agreement is assignable by the Company at the Company's discretion and the Employee authorizes the Company's successors and assigns to enforce this Agreement for their respective benefits.

14. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

15. The Employee agrees that a breach of any provision(s) of this Agreement will toll the running of the limitation period with respect to such provision(s) for as long as such breach occurs.

16. The Employee agrees and acknowledges that the Company's agreement to employ the Employee, in and of itself, is sufficient and adequate consideration for the Employee's promises and obligations hereunder, and that the compensation and other benefits that the Company provides the Employee during the course of the Employee's employment are, independently and collectively, sufficient and adequate consideration for the Employee's promises and obligations hereunder.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Employee has executed this Agreement to be effective as of the date set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____(s)
Name:
Title:

_____(s)
NAME

SCHEDULE A

The following items are inventions, ideas, computer software programs or other equipment or technology not covered by Section 4 of this Agreement, which the undersigned conceived of or developed, wholly or in part, prior to the Employee's employment or engagement with the Company and shall be excluded from the scope of this Agreement.

If the undersigned has no such items to disclose, write "NONE" on this line: .

Description of Items: (if applicable)

Title on Document	Date on Document	Name of Witness on Document

LIQUIDIA TECHNOLOGIES, INC.

By: _____ NAME _____

Dated: _____ Dated: _____

EXECUTIVE EMPLOYMENT AGREEMENT

This **EXECUTIVE EMPLOYMENT AGREEMENT** (the "***Agreement***") is entered into on January 22, 2018, by and between Kevin Gordon (the "***Executive***") and Liquidia Technologies, Inc., a Delaware corporation (the "***Company***"). Each of the Company and Executive is a "***Party***" and, collectively, they are the "***Parties***."

The Company desires to employ Executive and, in connection with such employment, to compensate Executive for Executive's personal services to the Company; and

Executive desires to provide personal services to the Company in return for certain compensation.

Accordingly, in consideration of the mutual promises and covenants contained herein, the Parties agree to the following:

1. EMPLOYMENT BY THE COMPANY.

1.1 **Effective Date; Start Date; At-Will Employment**. This Agreement is contingent, and shall become effective, on the last to occur of the following: (a) Executive's satisfactory completion of a background check, (b) Executive's compliance with the Immigration Reform and Control Act of 1986, and (c) Executive's execution of this Agreement (the "***Effective Date***"). Subject to the foregoing, Executive's employment is anticipated to commence on January 22, 2018 (the "***Start Date***"), and Executive shall be employed by the Company on an "at will" basis, meaning either the Company or Executive may terminate Executive's employment at any time, with or without cause or advance notice, subject to Executive's right to receive the compensation set forth in Section 6 hereof. Any contrary representations that may have been made to Executive shall be superseded by this Agreement. This Agreement shall constitute the full and complete agreement between Executive and the Company on the "at will" nature of Executive's employment with the Company, which may be changed only in an express written agreement signed by Executive and a duly authorized officer of the Company. Executive's rights to any compensation following a termination shall be only as set forth in Section 6.

1.2 **Position**. Subject to the terms set forth herein, the Company agrees to employ Executive in the position of President and Chief Financial Officer, and Executive hereby accepts such employment. Executive will report to the Chief Executive Officer ("***CEO***").

1.3 **Duties**. Executive shall faithfully perform all duties of the Company related to the position or positions held by the Executive, including but not limited to all duties set forth in this Agreement and/or in the Bylaws of the Company related to the position or positions held by the Executive and all additional duties that are reasonably prescribed from time to time by the CEO. In addition to the foregoing, Executive shall serve as the Company's principal accounting officer. Executive shall devote the Executive's full business time and attention to the performance of the Executive's duties and responsibilities on behalf of the Company and in furtherance of its best interests. Executive shall perform Executive's duties under this Agreement principally out of the Company's corporate headquarters in North Carolina. In

addition, Executive shall make such business trips at the Company's expense to such places as may be necessary or advisable for the efficient operations of the Company.

1.4 **Company Policies**. The Executive shall comply with all Company written policies, standards, rules and regulations (a "***Company Policy***" or collectively, the "***Company Policies***") and all applicable government laws, rules and regulations that are now or hereafter in effect. The Executive acknowledges receipt of copies of all written Company Policies that are in effect as of the date of this Agreement. Notwithstanding the foregoing, in the event that the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement shall control.

2. COMPENSATION.

2.1 **Salary**. Executive shall receive a base salary of $450,000 on an annualized basis, payable subject to standard federal and state payroll withholding requirements in accordance with the Company's standard payroll practices ("***Base Salary***"). Executive's Base Salary may be increased from time to time by the Board of Directors of the Company (the "***Board***"). Notwithstanding anything to the contrary, the Base Salary may be reduced if the Board determines such reduction is necessary and justified by the financial condition of the Company and implements an equal percentage reduction in the base salaries of all of the Company's executive officers, but in no event will such reduction be greater than ten percent (10%) of the Base Salary. A reduction in Executive's Base Salary in accordance with the immediately preceding sentence shall not constitute a material diminution in Base Salary as described in Section 6.4(b) of this Agreement.

2.2 **Bonus**. Commencing on January 1, 2018, and for the period Executive is employed with the Company, Executive shall be eligible to earn for Executive's services to be rendered under this Agreement a discretionary annual cash bonus target equal to 40% of Base Salary ("***Bonus Target***"), subject to review and adjustment by the Company in its sole discretion, payable subject to standard federal and state payroll withholding requirements. Whether or not Executive earns any bonus will be dependent upon (a) Executive's continuous performance of services to the Company through the date any bonus is paid, except as set forth in Sections 6.1 and 6.7, and (b) the actual achievement by Executive and the Company of the applicable performance targets and goals set by the Board in advance of, or within the first quarter of, each calendar year. The annual period over which performance is measured for purposes of this bonus is January 1 through December 31. The Board will determine in its reasonable discretion the extent to which Executive and the Company have achieved the performance goals upon which the bonus is based and the amount of the bonus, which could be above or below the Bonus Target (and may be zero). Any bonus shall be subject to the terms of any applicable incentive compensation plan adopted by the Company. Any bonus, if earned, will be paid to Executive within the time period set forth in the incentive compensation plan, or if no such time period was established, within two and one-half months following the end of the year during which the bonus is earned.

2.3 **Equity.** Subject to Board and stockholder approval of a sufficient increase in the number of shares of Common Stock reserved and authorized for issuance under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as may be amended from time to time by the

Company (the "***Plan***"), Executive shall receive the following grants: (i) an option (the "***Option***") to purchase shares of Common Stock equal to 1% of the Company's issued and outstanding capital stock determined on an as converted to common stock, fully diluted basis (excluding any shares that have not been granted or are not subject to outstanding awards under the Company's equity incentive plans, but including all equity issued in the Series D capital round) on the date of grant; and (ii) a number of Restricted Stock Unit Awards (the **"*RSU*"**) (as defined in the Plan) equal to 1% of the Company's issued and outstanding capital stock determined on an as converted to common stock, fully diluted basis (excluding any shares that have not been granted or are not subject to outstanding awards under the Company's equity incentive plans, but including all equity issued in the Series D capital round) on the date of grant. The date of grant for the Option and the RSU shall be on such date as the Board next approves a 409A valuation of the Company's Common Stock (the "***Valuation***"). The exercise price per share of the Option shall be the fair value (as defined under the terms of the Plan) of such shares as determined by the Valuation. The Company shall use commercially reasonable efforts to complete the Valuation within two weeks following its next equity financing. The Option and the RSU grant shall be subject to the terms of the Plan and the applicable form of grant agreement. To the extent permissible under law, the Option shall be an incentive stock option. Subject to your continued employment through the applicable vesting dates and the terms and conditions of the Plan and the applicable award agreement, the Option and the RSU shall be subject to the following vesting schedule: 25% of the grant will become vested and exercisable or settled, as applicable, on the 12 month anniversary of the Start Date and the balance will become vested and exercisable or settled, as applicable, in equal monthly installments over the following 36 months.

2.4 **Additional Equity Grant.** Upon the earlier of (a) the Company consummating an initial public offering (IPO) of its Common Stock or (b) the Company entering into an equity financing transaction or a series of such transactions up to an aggregate amount of $20 million (excluding the Company's Series D round) and subject to your continued employment through such date, you will be awarded on the date of the execution of the underwriting agreement of the IPO or the closing date of such equity financing, an option to purchase additional shares of Common Stock and a number of additional Restricted Stock Units (the "***Additional Equity Grant*"**) on a pro rata basis such that your outstanding number of options and Restricted Stock Units (which includes the grants made pursuant to Section 2.3) shall be equal in the aggregate to 2% (1% in options and 1% in Restricted Stock Units) of the Company's issued and outstanding capital stock determined on an as converted to common stock, fully diluted basis (excluding any shares that have not been granted or are not subject to outstanding awards under the Company's equity incentive plans) on the date of grant. The Additional Equity Grant shall be subject to the vesting conditions and schedule set forth in Section 2.3, except that the vesting commencement date shall be the date of grant of the Additional Equity Grant. The options issued pursuant to this Section 2.4 shall be nonqualified stock options and shall have an exercise price equal to the price per share in the IPO. The Additional Equity Grant shall be subject to the terms of the then current equity plan adopted by the Company and the applicable form of grant agreement

2.5 **Benefits**. Executive will be eligible to participate on the same basis as similarly situated employees in the Company's benefit plans in effect from time to time during Executive's employment. All matters of eligibility for coverage or benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves

the right to change, alter, or terminate any benefit plan in its sole discretion, provided that such changes apply generally to the participants of such plan.

2.6 **Expense Reimbursement**. The Company shall reimburse Executive for all customary and appropriate business-related expenses actually incurred and documented in accordance with Company Policy, as in effect from time to time. For the avoidance of doubt, to the extent that any reimbursements payable to Executive are subject to the provisions of Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"): (a) any such reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, (b) the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and (c) the right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

3. PROPRIETARY INFORMATION, INVENTIONS, NON-COMPETITION AND NON-SOLICITATION OBLIGATIONS. As a condition of employment, Executive agrees to execute and abide by a Confidentiality, Inventions and Non-Competition Agreement (the "***Confidential Information Agreement***"), which may be amended by the Parties from time to time without regard to this Agreement. The Confidential Information Agreement contains provisions that are intended by the Parties to survive and do survive termination of this Agreement.

4. OUTSIDE ACTIVITIES DURING EMPLOYMENT. Except with the prior written consent of the Company, which shall not be unreasonably withheld, Executive will not, while employed by the Company, undertake or engage in any other employment, occupation or business enterprise that would interfere with Executive's responsibilities and the performance of Executive's duties hereunder, except for (i) reasonable time devoted to volunteer services for or on behalf of such religious, educational, non-profit and/or other charitable organization as Executive may wish to serve, (ii) reasonable time devoted to activities in the non-profit and business communities consistent with Executive's duties, (iii) reasonable time devoted to service on the board of directors of up to two (2) companies that are not competitive with the Company, and (iv) such other activities as may be specifically approved by the Company. This restriction shall not, however, preclude Executive from owning less than one percent (1%) of the total outstanding shares of a publicly traded company, or employment or service in any capacity with Affiliates of the Company. As used in this Agreement, "***Affiliates***" means an entity under common management or control with the Company.

5. NO CONFLICT WITH EXISTING OBLIGATIONS. Executive represents that Executive's performance of all the terms of this Agreement and as an executive of the Company do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

6. TERMINATION OF EMPLOYMENT. The Parties acknowledge that Executive's employment relationship with the Company is at-will. The provisions in this Section govern the amount of compensation, if any, to be provided to Executive upon termination of employment and do not alter this at-will status.

6.1 **Termination by the Company Without Cause**.

(a) The Company shall have the right to terminate Executive's employment with the Company pursuant to this Section 6.1 at any time without "Cause" (as defined in Section 6.2(b) below) by giving thirty (30) days' advance notice as described in Section 7.1 of this Agreement; *provided, however,* that the Company may elect for you to be on leave or to perform modified duties at any time between the date of notice and the date of termination. A termination pursuant to Sections 6.3 and 6.5 below is not a termination without "Cause" for purposes of receiving the benefits described in this Section 6.1.

(b) If the Company terminates Executive's employment at any time without Cause and provided that such termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h) a "***Separation from Service***"), then Executive shall be entitled to receive the Accrued Obligations (defined below) and, subject to Executive's compliance with the obligations in Section 6.1(c) below, then Executive shall also be entitled to receive (collectively, the "***Severance Benefits***"):

(i) an amount equal to Executive's then current Base Salary for twelve (12) months (the "***Severance Period***"), less all applicable withholdings and deductions, paid in equal installments beginning on the Company's first regularly scheduled payroll date following the Release Effective Date (as defined in Section 6.1(c) below), with the remaining installments occurring on the Company's regularly scheduled payroll dates thereafter;

(ii) an amount equal to the bonus that Executive would have earned pursuant to Section 2.2 if Executive had remained employed through the end of the applicable fiscal year in which the termination date occurs, pro-rated based on the number of days that Executive was employed with the Company during the applicable fiscal year, payable on the date that such bonus is paid to the Company's other executives; and

(iii) payment of the employer portion of the premiums required to continue Executive's group health care coverage under the applicable provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985 ("***COBRA***"), provided that Executive timely elects to continue coverage under COBRA, until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A), (B) or (C), the "***COBRA Payment Period***"). Notwithstanding the foregoing, if at any time the Company determines in its sole discretion that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings for the remainder of the COBRA Payment Period, regardless of whether Executive elects COBRA coverage (the "***Special Severance Payment***"). Executive may, but is not obligated to, use such Special Severance Payment toward the cost of COBRA

premiums. If Executive becomes eligible for coverage under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Payment Period, Executive must immediately notify the Company of such event, and all payments and obligations under this clause will cease.

(c) Executive will be paid all of the Accrued Obligations on the Company's first payroll date after Executive's date of termination from employment or earlier if required by law. Executive shall receive the Severance Benefits pursuant to Section 6.1(b) of this Agreement if: (i) Executive signs and delivers to the Company an effective, general release of claims in favor of the Company and its affiliates and representatives, in a form substantially similar to that contained in Exhibit B hereto, as may be amended by the Company to reflect changes in the law (the "***Release***"), by the 60th day following the termination date or such earlier date as set forth in the Release, which cannot be revoked in whole or part (if applicable) by such date or such earlier date as set forth in the Release (the date that the Release can no longer be revoked is referred to as the "***Release Effective Date***"); (ii) if Executive holds any other positions with the Company, Executive resigns such position(s) to be effective no later than the date of Executive's termination date (or such other date as requested by the Board); (iii) Executive returns all Company property; (iv) Executive complies with all post-termination obligations under this Agreement and the Confidential Information Agreement; and (v) Executive materially complies with the terms of the Release, including without limitation any non-disparagement and confidentiality provisions contained in the Release. To the extent that any Severance Benefits are deferred compensation under Section 409A of the Code, and are not otherwise exempt from the application of Section 409A, then, if the period during which Executive may consider and sign the Release spans two calendar years, the payment of Severance Benefits will not be made or begin until the later calendar year.

(d) For purposes of this Agreement, "***Accrued Obligations***" are (i) Executive's accrued but unpaid salary through the date of termination, (ii) any unreimbursed business expenses incurred by Executive payable in accordance with the Company's standard expense reimbursement policies, and (iii) benefits owed to Executive under any qualified retirement plan or welfare benefit plan in which Executive was a participant in accordance with applicable law and the provisions of such plan.

(e) The Severance Benefits provided to Executive pursuant to this Section 6.1 is in lieu of, and not in addition to, any benefits to which Executive may otherwise be entitled under any Company severance plan, policy or program.

(f) Any damages caused by the termination of Executive's employment without Cause would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.2 **Termination by the Company for Cause**.

(a) Subject to Section 6.2(c) below, the Company shall have the right to terminate Executive's employment with the Company at any time for Cause by giving notice as described in Section 7.1 of this Agreement.

(b) "***Cause***" for termination shall mean that Executive has engaged in any of the following: (i) any material breach of the terms of this Agreement by Executive, or the willful failure of Executive to diligently and properly perform Executive's material duties for the Company; (ii) Executive's misappropriation or unauthorized use of the Company's tangible or intangible property that causes or is likely to cause material harm to the Company or its reputation, or material breach of the Confidential Information Agreement or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (iii) any material failure to comply with the Company Policies or any other policies and/or directives of the Board; (iv) Executive's use of illegal drugs or any illegal substance, or Executive's use of alcohol in any manner that materially interferes with the performance of the Executive's duties under this Agreement; (v) any dishonest or illegal action (including, without limitation, embezzlement) or any other action, whether or not dishonest or illegal, by Executive which is willful and materially detrimental to the interest and well-being of the Company, including, without limitation, harm to its reputation; (vi) Executive's failure to fully disclose any material conflict of interest the Executive may have with the Company in a transaction between the Company and any third party which is materially detrimental to the interest and well-being of the Company; (vii) any willful adverse action or omission by Executive which would be required to be disclosed pursuant to public securities laws or which would limit the ability of the Company or any entity affiliated with the Company to sell securities under any Federal or state law or which would disqualify the Company or any affiliated entity from any exemption otherwise available to it; or (viii) Executive's material violation of the Company's Policies prohibiting unlawful harassment, discrimination, retaliation, or workplace violence; *provided*, *however*, that prior to any termination of Executive for "Cause," if the grounds for such Cause are reasonably capable of cure by Executive, the Company shall provide Executive with written notice of the grounds for Cause and provide Executive with thirty (30) business days in which to cure such Cause. Provided further that no act or failure to act on Executive's part shall be considered "willful" unless the Board determines it was done, or was omitted to be done, by Executive in bad faith or in a manner that Executive could not have reasonably believed to be in the best interest of the Company.

(c) In the event Executive's employment is terminated at any time for Cause, Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.3 **Resignation by Executive.**

(a) Executive may resign from Executive's employment with the Company at any time by giving thirty (30) days' advance notice as described in Section 7.1, *provided* that the Company may set a termination date at any time between the date of notice and the date of resignation, in which case Executive's resignation shall be effective as of such other date. Executive will receive compensation through any required notice period.

(b) In the event Executive resigns from Executive's employment with the Company for any reason (other than a resignation for Good Reason as described in Section 6.4 below), Executive will not receive Severance Benefits or any other severance compensation or

benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.4 **Resignation by Executive for Good Reason.**

(a) Provided Executive has not previously been notified of the Company's intention to terminate Executive's employment, Executive may resign from employment with the Company for Good Reason (as defined in Section 6.4(b) below).

(b) "***Good Reason***" for resignation shall mean the occurrence of any of the following without Executive's prior consent: (i) a material diminution in Executive's authority, duties or responsibilities; (ii) a material diminution in Executive's Base Salary or Bonus Target; (iii) a requirement that Executive report to an employee other than the CEO; (iv) the Company materially breaches its obligations under this Agreement; or (v) Executive's principal place of employment is relocated by more than fifty (50) miles from the Company's present location in Research Triangle Park, North Carolina. In addition to any requirements set forth above, in order for any of the above events to constitute "Good Reason," Executive must (X) inform the Company of the existence of the event within sixty (60) days of the initial existence of the event, after which date the Company shall have no less than thirty (30) days to cure the event which otherwise would constitute "Good Reason" hereunder, and (Y) Executive must terminate his employment with the Company for such "Good Reason" no later than ninety (90) days after the initial existence of the event which prompted the Executive's termination. Any actions taken by the Company to accommodate a disability of Executive or pursuant to the Family and Medical Leave Act shall not be a Good Reason for purposes of this Agreement.

(c) In the event Executive resigns from Executive's employment for Good Reason, and provided that such termination constitutes a Separation from Service, then subject to Executive's compliance with the obligations in Section 6.1(c) above, Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1 and on the same terms and conditions set forth in Section 6.1(c) and Section 6.1(e) as if Executive had been terminated by the Company without Cause.

(d) Any damages caused by the termination of Executive's employment for Good Reason would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.5 **Termination by Virtue of Death, Disability of Executive, or Discontinuation of Business.**

(a) In the event of Executive's death while employed pursuant to this Agreement, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

(b) Subject to applicable state and federal law, the Company shall at all times have the right, upon written notice to Executive, to terminate this Agreement based on Executive's Disability. Termination by the Company of Executive's employment based on

"***Disability***" shall mean termination because a qualified medical doctor mutually acceptable to the Company and Executive or Executive's personal representative has certified in writing that: (A) Executive is unable, because of a medically determinable physical or mental disability, to perform the essential functions of Executive's job, with or without a reasonable accommodation, for more than one hundred and eighty (180) calendar days measured from the last full day of work; or (B) by reason of mental or physical disability, it is unlikely that Executive will be able, within one hundred and eighty (180) calendar days, to resume the essential functions of Executive's job, with or without a reasonable accommodation, and to otherwise discharge the Executive's duties under this Agreement. This definition shall be interpreted and applied consistent with the Americans with Disabilities Act, the Family and Medical Leave Act, and other applicable law. In the event Executive's employment is terminated based on Executive's Disability, Executive will not receive Severance Benefits or any other severance compensation or benefit, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

(c) In the event the Company's business is discontinued because rendered impracticable by substantial financial losses, lack of funding, legal decisions, administrative rulings, declaration of war, dissolution, national or local economic depression or crisis or any reasons beyond the control of the Company, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive or his legal representative all Accrued Obligations.

6.6 **Cooperation With Company After Termination of Employment**. Following termination of Executive's employment for any reason and for a period one (1) year thereafter, Executive agrees to cooperate reasonably (a) with the Company in (i) the defense of any legal matter involving any matter that arose during Executive's employment with the Company, and (ii) all matters relating to the winding up of Executive's pending work and the orderly transfer of any such pending work to such other employees as may be designated by the Company; and (b) with all government authorities on matters pertaining to any investigation, litigation or administrative proceeding pertaining to the Company. The Company will reimburse Executive for any reasonable travel and out of pocket expenses incurred by Executive in providing such cooperation.

6.7 **Change in Control Benefits.** In the event the Company (or any surviving or acquiring corporation) terminates Executive's employment without Cause or Executive resigns for Good Reason within twelve (12) months following the effective date of a Change in Control (as defined under the Plan), then Executive shall be entitled to the Accrued Obligations and, provided that Executive complies with the obligations in Section 6.1(c) of this Agreement (including the requirement to provide an effective Release) the following: (a) Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1(b) and on the same conditions as if Executive had been terminated by the Company without Cause, except that Executive's bonus in Section 6.1(b)(ii) shall be payable at the Bonus Target; and (b) in the event that Executive's outstanding equity as of the closing of the Change in Control is assumed or continued (and retained in accordance with its terms) by the surviving entity in a Change in Control, then 100% of the unvested portion of such equity shall become vested.

6.8 **Application of Section 409A**.

(a) It is intended that all of the severance payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively, "***Section 409A***") provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9),

and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms.

(b) The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Executive under this Agreement. In the event that the terms of this Agreement would subject Executive to any additional tax, penalty or interest under Section 409A (the "***409A Penalties***"), the Company and Executive shall cooperate in good faith to amend the terms of this Agreement to avoid such 409A Penalties, if possible. The Company shall not be liable to Executive for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A.

(c) No severance payments will be made under this Agreement unless Executive's termination of employment constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

(d) For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Executive's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

(e) If the Company determines that the severance benefits provided under this Agreement constitutes "deferred compensation" under Section 409A and if Executive is a "specified employee" of the Company, as such term is defined in Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation from Service, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Severance Benefits will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's Separation from Service, and (ii) the date of Executive's death (such earlier date, the "***Delayed Initial Payment Date***"), the Company will (1) pay to Executive a lump sum amount equal to the sum of the Severance Benefits that Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Severance Benefits had not been delayed pursuant to this Section 6.8, and (2) commence paying the balance of the Severance Benefits in accordance with the applicable payment schedule set forth in Section 6.1. No interest shall be due on any amounts deferred pursuant to this Section 6.8.

6.9 **Parachute Payments**.

(a) Notwithstanding any other provisions of this Agreement to the contrary, in the event that it shall be determined that any payment or distribution to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "***Payment***") would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, the Company shall reduce the aggregate present value of the Payments under this Agreement to the Reduced Amount (as defined below) if, and only if, reducing the Payments under this Agreement will provide Executive with a greater net after-tax amount than would be the case if no such reduction was made, taking into account the applicable federal, state, local and foreign income, employment and other taxes, including the excise tax imposed by Section 4999 of the Code. If a reduction in the Payments is necessary, such reduction shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. Within any such category of payments and benefits (that is, clauses (1), (2), (3) or (4) of this Section 6.9(a)), a reduction shall occur first with respect to amounts that are not "deferred compensation" within the meaning of Section 409A of the Code and then with respect to amounts that are. The "***Reduced Amount***" shall be an amount expressed in present value that maximizes the aggregate present value of Payments under this Agreement without causing any Payment to be nondeductible by the Company because of Section 280G of the Code.

(b) All determinations to be made under this Section 6.9 shall be made at the Company's expense by a firm of certified public accountants of national standing selected by the Company (the "***Accounting Firm***") which may be the firm regularly auditing the financial statements of the Company. The Company and Executive shall furnish to the Accounting Firm such information and documents as the Accounting Firm may reasonably require in order to make a determination under this Section. To the extent requested by Executive, the Company shall cooperate with Executive in good faith in valuing, and the Accounting Firm shall value, services to be provided by Executive (including refraining from performing services pursuant to a covenant not to compete) before, on or after the date of the transaction which cause the application of Section 280G of the Code such that payments in respect of such services may be considered to be "reasonable compensation" within the meaning of the regulations under Section 280G of the Code. In making its determinations hereunder, the Accounting Firm shall apply reasonable, good faith interpretations regarding the applicability of Section 280G and Section 4999, along with any other applicable portions of the Code or other tax laws. The Accounting Firm shall make all determinations required to be made under this Section and shall provide detailed supporting calculations to the Company and Executive within 30 days after the Termination Date or such earlier time as is requested by the Company, and provide an opinion to Executive that he or she has substantial authority not to report any excise tax on his or her Federal income tax return with respect to any Payments. Any such determination by the Accounting Firm shall be binding upon the Company and Executive. Subject to Sections 6.1(c) and 6.9, within five business days thereafter, the Company shall pay to or distribute to or for the benefit of Executive such amounts as are then due to Executive under this Agreement.

(c) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Accounting Firm or the Company hereunder, it is possible that Payments, as the case may be, will have been made by the Company which should not have been made ("***Overpayment***") or that additional Payments, as the case may be,

which will not have been made by the Company could have been made ("***Underpayment***"), in each case, consistent with the calculations required to be made hereunder. In the event that the Accounting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against Executive which the Accounting Firm believes has a high probability of success determines that an Overpayment has been made, promptly on notice and demand Executive shall repay to the Company any such Overpayment paid or distributed by the Company to or for the benefit of Executive together with interest at the applicable Federal rate provided for in Section 7872(f)(2)(A) of the Code; provided, however, that no such amount shall be payable by Executive to the Company if and to the extent such payment would not either reduce the amount on which Executive is subject to tax under Section 1 and Section 4999 of the Code or generate a refund of such taxes. In the event that the Accounting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2)(A) of the Code.

7. GENERAL PROVISIONS.

7.1 **Notices**. Any notices required hereunder to be in writing shall be deemed effectively given: (a) upon personal delivery to the Party to be notified, (b) when sent by electronic mail or confirmed facsimile if sent during normal business hours of the recipient, and if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at its primary office location and to Executive at Executive's address as listed on the Company payroll, or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other.

7.2 **Severability**. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.3 **Survival.** Provisions of this Agreement which by their terms must survive the termination of this Agreement in order to effectuate the intent of the Parties will survive any such termination, whether by expiration of the term, termination of Executive's employment, or otherwise, for such period as may be appropriate under the circumstances.

7.4 **Waiver**. If either Party should waive any breach of any provisions of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 **Complete Agreement**. This Agreement constitutes the entire agreement between Executive and the Company with regard to the subject matter hereof. This Agreement is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter

and supersedes any prior oral discussions or written communications and agreements. This Agreement is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in writing signed by Executive and an authorized officer of the Company. The Parties have entered into a separate Confidential Information Agreement and have entered or may enter into separate agreements related to equity. These separate agreements govern other aspects of the relationship between the Parties, have or may have provisions that survive termination of Executive's employment under this Agreement, may be amended or superseded by the Parties without regard to this Agreement and are enforceable according to their terms without regard to the enforcement provision of this Agreement.

7.6 **Headings**. The headings of the sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.7 **Successors and Assigns**. The Company shall assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any company or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said Company or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a Party, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder, other than to Executive's estate upon death.

7.8 **Withholding**. All amounts payable hereunder shall be subject to applicable tax withholding.

7.9 **Choice of Law**. This Agreement in all respects shall be governed by and interpreted in accordance with the laws of the State of North Carolina, both procedural and substantive, without regard to conflicts of law, except to the extent that federal laws and regulations preempt otherwise applicable law.

7.10 **Mandatory Mediation**. Prior to and as a condition of either Party's filing suit in state or federal court, the Parties shall engage in a mediated settlement conference in accordance with the North Carolina Superior Court Rules Implementing Statewide Mediation. The Parties shall mediate in good faith until settlement is reached or an impasse is declared by the mediator.

7.11 **Jurisdiction.** Each Party hereby irrevocably submits to the exclusive jurisdiction of the United States District Court located in Wake County, North Carolina, or any state court located within such state, in respect of any claim relating to this Agreement or Executive's employment with the Company, and hereby waives, and agrees not to assert, as a defense in any action, suit or proceeding in which any such claim is made that said Party is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in such courts or that the venue thereof may not be appropriate or that this Agreement may not be enforced in or by such courts. Any appellate proceedings shall take place in the appropriate courts having appellate jurisdiction over the courts set forth in this Section.

7.12 **Counterparts**. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one Party, but all of which taken together will constitute one and the same Agreement. Facsimile signatures and signatures transmitted by PDF shall be equivalent to original signatures.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first written above.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Neal F. Fowler
Name: Neal F. Fowler
Title: CEO

Executive:

/s/ Kevin K. Gordon
Kevin K. Gordon

Exhibit A

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

THIS CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT (this "**Agreement**") is effective as of DATE (the "**Effective Date**") by and between NAME (hereinafter "**Employee**") and Liquidia Technologies, Inc. (the "**Company**").

STATEMENT OF PURPOSE

The Employee desires to be employed by the Company, and the Company is willing to employ Employee strictly subject to Employee's agreement to be bound by the terms of this Agreement.

IN CONSIDERATION of the Company's employment of the Employee and the compensation and other benefits that the Company may provide to Employee as an employee, the Employee, intending to be legally bound, agrees to the following:

1. For purposes of this Agreement, "**Proprietary Information**" is information (whether in written or other form or whether or not patentable or protectable by copyright, trade secret, trade dress, trademark, or the like) that: (i) has been created, invented, discovered, or developed by the Employee in connection with the Employee's employment by the Company; (ii) is non-public and has been disclosed, furnished, or communicated to the Employee in connection with the Employee's employment by the Company; or (iii) is non-public and the unauthorized disclosure of which could be detrimental to the interests of the Company. Proprietary Information includes, but is not limited to, all inventions, works of authorship, trade secrets, know how, proprietary or confidential information, including, but not limited to, research, product or business plans, products, services, projects, proposals, processes, formulas, ideas, data, compositions, technology, computer programs and related source code and object code, developments, designs, drawings, marketing information and plans, customer lists, budgets, projections, partners, cost analyses, acquisition candidates, relevant parts of analysis, reviews, compilations, studies or other records and documents, and other information owned by the Company, disclosed to the Employee, or to which the Employee has been provided access or gains access, either directly or indirectly, by any means. Proprietary Information does not include information that is or becomes generally available to the public other than as a result of a disclosure by the Employee or by any other person or entity that is under a confidentiality obligation to Company with respect to such information.

2. Nondisclosure of Proprietary Information.

2.1 The Employee acknowledges and agrees that Proprietary Information is the sole property of the Company or its designee and that the Employee shall have no right,

title, license, or interest in or to any Proprietary Information. During and after the Employee's employment by the Company, the Employee shall keep in the strictest confidence and trust all Proprietary Information and shall not directly or indirectly disclose, distribute, copy, supply, or use, in whole or in part, any Proprietary Information except as approved in advance in writing by the Company. Notwithstanding the foregoing, it is understood that, at all such times, the Employee is free (i) to use information which was known to the Employee prior to employment with the Company or which is generally known in the trade or industry through no breach of this Agreement or other act or omission by the Employee, (ii) to discuss the terms of the Employee's employment, wages and working conditions to the extent expressly protected by applicable law, (iii) to report possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, (iv) to respond to inquiries from, or otherwise cooperate with, any governmental or regulatory investigation, or (v) to testify truthfully as compelled by lawful process or subpoena related to such testimony after the Employee has provided advance written notice of said subpoena to the Company's Chief Executive Officer and reasonably cooperates with the Company in any process to oppose said subpoena.

2.2 The Employee shall not use or disclose to the Company, or assist in the disclosure to the Company of, proprietary or confidential information belonging to any third parties, including any prior employer(s).

2.3 The Employee acknowledges and agrees that the Company has received and in the future may receive from third parties, including, but not limited to, potential collaborating partners or customers of the Company, confidential or proprietary information ("**Third Party Information**") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of the Employee's employment with the Company and thereafter, the Employee will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel or the Company's designee who need to know such information in connection with their work for the Company or such third party) or use Third Party Information, except in connection with the Employee's work for the Company or such third party, unless expressly approved in advance in writing by the Company. The Employee further agrees to be bound by and subject to any confidentiality or nondisclosure agreements or clauses with respect to such Third Party Information between the Company and any such third party.

2.4 Pursuant to the Defend Trade Secrets Act of 2016, the Employee acknowledges that the Employee will not have criminal or civil liability under any federal or state trade secret law for the disclosure of a trade secret that (i) is made (a) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and (b) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if the Employee files a lawsuit for retaliation by the Company for reporting a suspected violation of law, the Employee may

disclose the trade secret to the Employee's attorney and may use the trade secret information in the court proceeding, if the Employee (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

3. Upon the earliest to occur of (i) termination of the Employee's employment by the Company for any reason, (ii) termination of the Employee's access to Proprietary Information, or (iii) the request of the Company, the Employee shall return to the Company (and will not keep in Employee's possession or control or deliver to anyone else) all materials belonging to the Company, whether kept at the Employee's business office, personal residence or otherwise, including, but not limited to, all materials containing or relating to any Proprietary Information in any written, tangible, electronic or other form that the Employee may have in Employee's possession or control, and any and all mobile telephones, personal digital assistants, pagers, computer and other electronic devices and credit cards. After returning the materials and equipment described in the preceding sentence to the Company, the Employee shall not retain any copies of any such materials.

4. Ownership of Proprietary Information.

4.1 All Proprietary Information and other information, which by its nature is proprietary to the Company, relating to the Company's business or the Company's anticipated business, or based on, derived from or relating to any Proprietary Information (collectively, Proprietary Information and "**Work Product**") shall be the sole property of the Company. The Employee agrees that all Proprietary Information and Work Product created, conceived, reduced to practice, made or otherwise developed by the Employee, solely or jointly, during and in any way related to the Employee's employment, shall be the exclusive property of the Company and/or its designees or assignees, and shall be deemed "works made for hire," as that term is defined in Section 101 of the U.S. Copyright Act of 1976, as amended.

4.2 If, for any reason, any Proprietary Information and Work Product does not qualify as works made for hire, the Employee shall assign and does hereby irrevocably, unconditionally, and without encumbrance of any kind assign to the Company, and forever waives and agrees never to assert, all right, title, and interest, including without limitation, all patent, trademark, copyright, trade secret, and other intellectual property (collectively, "**Intellectual Property**") rights, in and to such Proprietary Information and Work Product. The Employee shall assist the Company, or its designee, in every proper way to secure the Company's rights in the Proprietary Information and Work Product and any Intellectual Property rights relating thereto in any and all countries, including (i) the disclosure to the Company of all pertinent information and data with respect thereto, (ii) the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company or its designee the sole and exclusive right, title and interest in and to the Proprietary Information and Work Product, and (iii) the defense of any claim, demand, action, litigation, suit, or other proceeding,

including, but not limited to, interference, cancellation, opposition, or other proceedings in respect of such applications or any registrations or patents issuing therefrom. The Employee shall continue such assistance after the termination of the Employee's employment by the Company.

4.3 During the Employee's employment by the Company, the Employee shall report promptly to the Company all Proprietary Information and Work Product created, conceived, reduced to practice, or otherwise developed by the Employee, solely or jointly.

4.4 If the Company is unable because of the Employee's mental or physical incapacity or for any other reason to secure the Employee's signature to apply for or to secure protection of any Proprietary Information and Work Product, then the Employee hereby designates and appoints the Company and its duly authorized officers and agents as its agents and attorneys-in-fact to execute and file any certificates, applications or documents and to do all of their lawful acts necessary to perfect and protect the Company's rights in the Proprietary Information and Work Product. The Employee expressly acknowledges that the foregoing power of attorney is coupled with an interest and is therefore irrevocable and shall survive the Employee's death or incompetency and the termination of the Employee's employment or engagement by the Company.

4.5 The Employee hereby represents and warrants that the Employee has fully disclosed to the Company on Schedule A attached hereto any idea, invention, discovery or process relating to the Company's business which, prior to the Employee's employment with the Company, the Employee conceived, reduced to practice, or developed, individually or jointly, and is to be excluded from the scope of this Agreement.

4.6 Notwithstanding anything in this Agreement to the contrary, the obligation of the Employee to assign or offer to assign the Employee's rights in an invention to the Company shall not extend or apply to an invention that the undersigned developed (i) entirely on the Employee's own time; (ii) without using Company equipment, supplies, facilities, or other resources, Proprietary Information or trade secret information unless such invention (a) relates to the Company's business or actual or demonstrably anticipated research or development, or (b) results from any work performed by the Employee for the Company. The Employee shall bear the burden of proof in establishing that the Employee's invention qualifies for exclusion under this Section 4.6.

5. Covenant Not To Compete.

5.1 For purposes of Part 5 of this Agreement, including each of its subparts, the following terms shall have the following meanings:

a. "**Competing Business**" shall mean any corporation, partnership, person, or other entity that is researching, developing, manufacturing, marketing, distributing, or selling any product, service, or technology that is competitive with any part of the Company's Business.

b. The "**Company's Business**" shall mean the development, manufacture, marketing, distribution, or sale of, including research directed to, any product, service, or technology that the Company is developing, manufacturing, marketing, distributing, or selling or to which the Company directed research at any time during Employee's employment with the Company. As of the date of this Agreement, the Company's Business includes, but is not limited to, research directed to and the development, manufacture, marketing, distribution, and/or sale of: (i) isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold; (ii) size and/or shape controllable pharmaceutical or therapeutic particles molded using a polymer or low surface energy mold; (iii) film based products of or containing arrays of size and/or shape controlled structures molded from a low surface energy mold; (iv) isolated nano or micro size and/or shape controlled particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled particles fabricated from a mold; (v) nano or micro size and/or shape controllable particles molded using a polymer or low surface energy mold; or (vi) patterned drum

fabrication and mold for manufacturing the products of (i)-(v) above. The Employee understands that during the Employee's employment with the Company, the Company's Business may expand or change, and the Employee agrees that any such expansions or changes shall expand or contract the definition of the Company's Business and the Employee's obligations under this Agreement accordingly.

c. "**Territory**" shall mean the following severable geographic areas: (i) the world, (ii) any country in which the Company or a Competing Business is engaged in business, (iii) any country in which the Company is engaged in business, (iv) the United States, Europe, and Asia, (v) the United States, (vi) any state, including the District of Columbia, in which the Company or a Competing Business is engaged in business, (vii) any state, including the District of Columbia, in which the Company is engaged in business, (viii) North Carolina, (ix) a one hundred mile radius of the Employee's principal place of employment or work for the Company, or (x) a one hundred mile radius of the Company's corporate headquarters.

5.2 It is recognized and understood by the Employee that, through the Employee's association with the Company, the Employee shall: (i) have access to trade secrets and confidential information of the Company, including, but not limited to, valuable information about its intellectual property, business operations and methods, and the persons with which it does business in various locations throughout the world, that is not generally known to or readily ascertainable by the Company's competitors, (ii) develop relationships with the Company's customers and others with which the Company does business, and these relationships are among the Company's most important assets, (iii) receive specialized knowledge of and specialized training in the Company's Business, and (iv) gain such knowledge of the Company's Business that, during the course of the Employee's employment with the Company and for a period of one year following the termination thereof, the Employee could not perform services for a Competing Business

without inevitably disclosing the Company's trade secrets and Proprietary Information to that Competing Business.

5.3 While employed by the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise) for any Competing Business, (ii) engage in any activities (or assist others to engage in any activities) that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing or prospective customers, suppliers, business partners, or contractors of the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (v) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company.

5.4 For a period of one year following the termination of the Employee's employment with the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise), within the Territory for any Competing Business, that are the same or substantially similar to any services that the Employee performed for the Company or that otherwise utilize skills, knowledge, and/or business contacts and/or relationships that the Employee developed while providing services to the Company, (ii) engage in any activities (or assist others to engage in any activities) within the Territory that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or any prospective customers to whom the Company has made a written proposal ("Prospective Customers"), suppliers, business partners, or contractors of the Company, during the last year of the Employee's employment with the Company, to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, (v) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or Prospective Customers, suppliers, business partners, or contractors of the Company with which the Employee worked or had business contact during the last year of the Employee's employment with the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (vi) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company. Where a Competing Business is a large enterprise with separately operated business units, the restrictions in Section 5.4(i) shall not apply to any such business unit that has no involvement in the research, development, manufacture, marketing, distribution, or sale of a product, service, or technology that is competitive with any part of the Company's Business; *provided, however*, that this sentence does not apply to any employees in a scientific role or whose role involves the research, development or maintenance of the Company's trade secrets. These obligations will continue for the specified period regardless of whether the termination of the Employee's

employment was voluntary or involuntary or with or without cause, and the specified period shall be tolled and shall not run during any time in which the Employee fails to abide by this obligations.

5.5 The Employee shall not at any time following the termination of the Employee's employment with the Company use the name or trading style of the Company in any country, or use in any country any name or trading style which is the same as or similar to any of the trade or service marks of the Company or any brand name or proposed brand name of any of the Company's products or proposed products, or represent himself or herself as carrying on or continuing or being connected with the Company or its business for any purpose whatsoever unless otherwise agreed by the Company in writing.

5.6 While employed by the Company, the Employee shall disclose to the audit committee of the Company the Employee's interest in respect of any contract or arrangement in which the Employee has any personal material interest, directly or indirectly, or any conflicts of interest (including the conflict of interest that may arise from the Employee's directorship(s) or executive position or personal investments in any corporation(s)) that may involve the Employee. Upon such disclosure, the Employee shall abstain from voting in respect of any such contract, arrangement, proposal, transaction, or matter in which the conflict of interest arises, unless and until the audit committee has determined that no such conflict of interest exists.

5.7 As an exception to the restrictions set forth in Parts 5.3 and 5.4 herein, the Employee may own passive investments in a Competing Businesses, (including, but not limited to, indirect investments through mutual funds), provided that the securities of the Competing Business are publicly traded and the Employee does not own or control more than two percent of the outstanding voting rights or equity of the Competing Business.

5.8 In the event that a court determines that the length of time, the geographic area, or the activities prohibited under this Agreement are too restrictive to be enforceable, the Court may reduce the scope of the restriction to the extent necessary to make the restriction enforceable.

5.9 The market for the Company's services and the Company's Business is highly specialized and highly competitive such that other companies and business entities compete with the Company in various locations throughout the world. The provisions set forth in this Agreement: (i) are reasonably necessary to protect the Company's legitimate business interests, (ii) are reasonable as to the time, territory, and scope of activities that are restricted, (iii) do not interfere with the Employee's ability to earn a comparable living or secure employment in the field of the Employee's choice, (iv) do not interfere and are not inconsistent with public policy or the public interest, and (v) are described with sufficient accuracy and definiteness to enable the Employee to understand the scope of the restrictions on the Employee.

5.10 Because of the unique nature of the Proprietary Information, the Employee understands and agrees that the Company will suffer irreparable harm in the event that the Employee fails to comply with any of the Employee's obligations under this Agreement and that monetary damages will be inadequate to compensate the Company for such breach. Accordingly, the Employee agrees that the Company will, in addition to any other remedies available to it at law or in equity, be entitled to injunctive relief to enforce the terms of this Agreement.

6. The Employee hereby authorizes the Company to provide a copy of this Agreement, including any exhibits hereto, to any and all of the Employee's future employers and to notify any and all such future employers that the Company intends to exercise its legal rights arising out of or in connection with this Agreement and/or any breach or any inducement of a breach hereof.

7. The Employee agrees that, during the term of the Employee's employment with the Company, the Employee will not: (i) engage in any other employment, occupation, consulting, or other business activity that conflicts with the Employee's obligations to the Company, or (ii) engage in any other activities that conflict with the Employee's obligations to the Company.

8. Debarment Certification

8.1 The Employee represents and promises that Employee:

(a) is not presently, and during the Employee's employment will not be, debarred or convicted for a crime for which Employee can be debarred under the Generic Drug Enforcement Act of 1992 (21USC335a)(the "**Act**"); and

(b) is not presently, and during the Employee's employment will not be, indicted or otherwise criminally or civilly charged by a government entity (Federal or State) with commission of the kinds of conduct for which Employee can be debarred under the Act; and

(c) will not employ or otherwise engage any individual who has been (i) debarred or (ii) convicted of a crime for which a person can be debarred under the Act, in any capacity in connection with the activities of developing or reporting data which may become part of an application for approval of a drug or biologic.

8.2 The Employee promises that, during the Employee's employment with the Company, the Employee will promptly notify the Company upon learning of or having a belief that the Employee cannot satisfy the obligations of Section 8.1 above.

9. The Employee agrees that this Agreement shall be enforced, construed and interpreted under the law of the state of North Carolina, without regard to the conflicts of laws principles thereof. The state and federal courts in North Carolina shall be the exclusive venues for the adjudication of all disputes arising out of this Agreement, and the Employee consents to the exercise of personal jurisdiction over the Employee in any such adjudication and hereby waives any and all objections and defenses to the exercise of such personal jurisdiction.

10. The Employee agrees that: (i) the Employee's employment relationship with the Company is "at-will," which means that either the Employee or the Company can terminate the relationship at any time for any reason or no reason, with or without notice, unless the Employee and the Company are parties to a contract that expressly provides a fixed term of employment, (ii) the Employee's employment relationship with the Company is contingent upon the Employee's execution of this Agreement, which is a material inducement to the Company to offer the employment relationship to the Employee and to provide Proprietary Information to the Employee, and (iii) this Agreement shall survive any termination for any reason whatsoever of the Employee's employment relationship with the Company.

11. The Employee agrees that the Company's failure to insist upon strict compliance with any provision of this Agreement shall not be deemed a waiver of such provision or of any other provision in the Agreement. The provisions of this Agreement shall be enforceable, notwithstanding the existence of any breach of this Agreement by the Company or of any claim by the Employee against the Company, whether predicated on this Agreement or otherwise.

12. This Agreement contains the entire understanding between the parties with respect to the subject matter hereof and supersedes all prior or contemporary agreements or understandings, whether written or oral, with respect thereto, provided, however, prior to the execution of this Agreement, if Company and the Employee were parties to any agreement regarding the subject matter hereof, that agreement will be superseded by this Agreement prospectively only. This Agreement may not be modified or amended except by an agreement in writing signed by both parties.

13. The Employee agrees that this Agreement is assignable by the Company at the Company's discretion and the Employee authorizes the Company's successors and assigns to enforce this Agreement for their respective benefits.

14. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

15. The Employee agrees that a breach of any provision(s) of this Agreement will toll the running of the limitation period with respect to such provision(s) for as long as such breach occurs.

16. The Employee agrees and acknowledges that the Company's agreement to employ the Employee, in and of itself, is sufficient and adequate consideration for the Employee's promises and obligations hereunder, and that the compensation and other benefits that the Company provides the Employee during the course of the Employee's employment are, independently and collectively, sufficient and adequate consideration for the Employee's promises and obligations hereunder.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Employee has executed this Agreement to be effective as of the date set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____(s)
Name:
Title:

_____(s)
NAME

SCHEDULE A

The following items are inventions, ideas, computer software programs or other equipment or technology not covered by Section 4 of this Agreement, which the undersigned conceived of or developed, wholly or in part, prior to the Employee's employment or engagement with the Company and shall be excluded from the scope of this Agreement.

If the undersigned has no such items to disclose, write "NONE" on this line: .

Description of Items: (if applicable)

Title on Document	Date on Document	Name of Witness on Document

LIQUIDIA TECHNOLOGIES, INC.

By: _____ NAME _____

Dated: _____ Dated: _____

Exhibit B

SEVERANCE AGREEMENT AND GENERAL RELEASE

SEVERANCE AGREEMENT AND GENERAL RELEASE

This **SEVERANCE AGREEMENT AND GENERAL RELEASE** ("Agreement") is made and entered into by Liquidia Technologies, Inc., (the "Company") and NAME ("Employee"). Throughout the remainder of the Agreement, the Company and Employee may be collectively referred to as the "Parties."

Employee has entered into an Executive Employment Agreement with the Company dated DATE (the "Employment Agreement"). Employee's employment by the Company will terminate pursuant to Section NUMBER of the Employment Agreement, effective DATE. The Parties desire that the employment termination be on mutually agreeable terms and to avoid all litigation relating to the employment relationship and its termination, and Employee desires severance benefits pursuant to Section NUMBER of the Employment Agreement. Accordingly, the Parties have agreed upon the terms herein.

Employee represents that Employee has carefully read the entire Agreement, understands its consequences, and voluntarily enters into it.

In consideration of the above and the mutual promises and good and valuable consideration set forth below, the sufficiency of which is acknowledged by the Parties, Employee and the Company agree as follows:

1. **SEPARATION** Employee's employment by the Company will terminate, effective DATE ("Termination Date"). The Company will pay Accrued Obligations (as defined in the Employment Agreement) owed to Employee (less any applicable taxes and withholdings) through the Termination Date and will continue to pay wages to Employee at that same rate through DATE. By signing this Agreement, Employee represents that Employee has been paid for all time worked and received all wages, salary, and other amounts of any kind owed to Employee by the Company, with the exception of the Accrued Obligations, any earned but unpaid incentive compensation pursuant to the terms of any such plan in which Employee is a participant, and the Severance Benefits described in Paragraph 2 of this Agreement.

2. **SEVERANCE BENEFITS.** Pursuant to Section NUMBER of the Employment Agreement, if Employee signs and does not revoke this Agreement and complies with its terms, the Company will provide to Employee the following "Severance Benefits:"

DESCRIBE SEVERANCE

The Severance Benefits afforded under this Agreement exceed what Employee otherwise is entitled to receive and are in lieu of any other severance compensation or severance benefits to which Employee otherwise might be entitled, and payment of these Severance Benefits is conditioned upon Employee's material compliance with the terms of this Agreement.

3. **RELEASE.** In consideration of the benefits conferred by this Agreement, **EMPLOYEE (ON BEHALF OF EMPLOYEE AND EMPLOYEE'S ASSIGNS, HEIRS, AND OTHER REPRESENTATIVES) RELEASES THE COMPANY, ITS PREDECESSORS, SUCCESSORS, AND ASSIGNS AND ITS AND/OR THEIR PAST, PRESENT, AND FUTURE OWNERS, PARENTS, SUBSIDIARIES, AFFILIATES, PREDECESSORS, SUCCESSORS, ASSIGNS, OFFICERS, DIRECTORS, EMPLOYEES, EMPLOYEE BENEFIT PLANS (TOGETHER WITH ALL PLAN ADMINISTRATORS, TRUSTEES, FIDUCIARIES, AND INSURERS), AND AGENTS ("RELEASEES") FROM ALL CLAIMS AND WAIVES ALL RIGHTS, KNOWN OR UNKNOWN, EMPLOYEE MAY HAVE OR CLAIM TO HAVE RELATING TO EMPLOYEE'S EMPLOYMENT WITH THE COMPANY, ITS PREDECESSORS, SUBSIDIARIES, OR AFFILIATES OR EMPLOYEE'S SEPARATION THEREFROM,** arising before the execution of this Agreement, including, but not limited to, claims: (i) for discrimination, harassment, retaliation, or accommodation arising under federal, state, or local laws prohibiting age, sex, national origin, race, religion, disability, veteran status, genetic information, or other protected class discrimination, harassment, or retaliation for protected activity (including, but not limited to, claims under the Age Discrimination in Employment Act of 1967 (ADEA), as amended); (ii) for compensation and benefits (including, but not limited to, claims under the Employee Retirement Income Security Act of 1974 (ERISA), as amended, the Fair Labor Standards Act of 1938 (FLSA), as amended, the Family and Medical Leave Act of 1993 (FMLA), as amended, and similar federal, state, and local laws); (iii) arising under federal, state, or local law of any nature whatsoever (including, but not limited to, constitutional, statutory, tort, express or implied contract, or other common law); (iv) for attorneys' fees; and (v) of any kind whatsoever (with the exception of those listed below) whether or not Employee knows about them at the time Employee signs this Agreement. The release of claims set forth in this paragraph does not apply to: (i) claims for workers' compensation benefits or unemployment benefits filed with the applicable state agencies; (ii) vested or accrued employee benefits under any of the Company's health, welfare or retirement benefit plans; (iii) any earned but unpaid incentive compensation pursuant to the terms of any such plan in which Employee is a participant; and (iv) any rights Employee may have as an insured under any insurance policy purchased or secured by the Company, including without limitation, any directors or officers liability insurance.

4. **COVENANT NOT TO SUE.** Employee will not sue Releasees on any matters relating to Employee's employment arising before the execution of this Agreement or join as a party with others who may sue Releasees on any such claims; provided, however, this paragraph will not: (i) bar claims for workers' compensation or unemployment benefits referenced in Paragraph 3 above, (ii) bar a challenge under the Older Workers Benefit Protection Act of 1990 (OWBPA) to the enforceability of the waiver

and release of ADEA claims set forth in this Agreement, or (iii) apply when prohibited by law, including as set forth in Paragraph 5 below. If Employee does not abide by this paragraph, then Employee will indemnify Releasees for all expenses that they incur in defending the action.

5. **AGENCY CHARGES/INVESTIGATIONS.** Nothing in this Agreement shall prohibit Employee from filing a charge or participating in an investigation or proceeding conducted by the U.S. Equal Employment Opportunity Commission or other governmental agency concerning the terms, conditions, and privileges of Employee's employment; provided, however, that by signing this Agreement, Employee waives Employee's right to, and shall not seek or accept, any monetary or other relief of any nature whatsoever in connection with any such charges, investigations, or proceedings, to the extent permitted by applicable law. In addition, nothing in this Agreement prevents Employee from reporting to, cooperating with, communicating with, or participating in any proceeding before the Securities and Exchange Commission or from taking any action protected under the whistleblower provisions of any federal securities law, none of which activities shall constitute a breach of the release, non-disparagement or confidentiality clauses of this Agreement.

6. **COMPANY INFORMATION AND PROPERTY.** Nothing in this Agreement shall relieve Employee from any confidentiality, proprietary information, secrecy, non-compete, non-disclosure, non-solicitation, invention rights and assignment obligations, or other such related obligations under any previously executed agreements with the Company. Without limiting the foregoing, Employee agrees that Employee will continue to be bound by the terms and conditions contained in the Confidentiality, Inventions and Non-Competition Agreement between Employee and the Company dated DATE (the "Confidentiality Agreement"), including any amendments thereto, and the terms of the Confidentiality Agreement are in full force and effect and survive Employee's termination of employment with the Company.

7. **RIGHT TO REVIEW AND REVOKE.** The Company delivered this Agreement to Employee on DATE and desires that Employee have adequate time and opportunity to review and understand the consequences of entering into it. Accordingly, the Company advises Employee to consult with an attorney prior to executing it, that Employee has twenty-one days within which to consider it, and that Employee may not execute it before the Termination Date. In the event that Employee does not return an executed copy of the Agreement to the Company within 21 calendar days of receiving it, the Agreement and the obligations of the Company herein shall become null and void. Employee may revoke the Agreement during the seven-day period immediately following Employee's execution of this Agreement. The Agreement will not become effective or enforceable until this revocation period has expired. To revoke the Agreement, a written notice of revocation must be delivered to the Company to the attention of Florina Gordon (florina.gordon@liquidia.com) during the seven-day period immediately following Employee's execution of this Agreement.

8. **CONFIDENTIALITY AND NONDISPARAGEMENT.** The terms and provisions of this Agreement are confidential, and Employee represents and warrants that since receiving this Agreement, Employee has not disclosed, and going forward will not disclose, the terms and provisions of this Agreement to third parties, except as required by law. Notwithstanding the above, Employee may reveal the terms and provisions of this Agreement to members of Employee's immediate family or to an attorney consulted for legal advice, provided that such persons agree to maintain the confidentiality of the Agreement. Employee represents and agrees that, since receiving this Agreement, Employee has not made, and going forward will not make, disparaging, defamatory, or derogatory remarks about the Company or its products, services, business practices, directors, officers, managers, or employees to anyone. The Company represents and agrees that, since receiving this Agreement, the Company, acting through its current members of the Board of Directors and the officer to whom Employee reports has not made, and going forward will not make, disparaging, defamatory, or derogatory remarks about Employee. Nothing in this Agreement shall prohibit Employee or the Company from participating in any communication with, or disclosing any information to, any representatives of any government agency referenced in Paragraph 5 of this Agreement or shall prohibit either the Company or Employee from providing truthful testimony in response to lawful process, or as otherwise required by law.

9. **APPLICATION OF SECTION 409A**. It is intended that all of the Severance Benefits payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Internal Revenue Code of 1986, as amended ("Code") and the regulations and other guidance thereunder and any state law of similar effect (collectively,

"Section 409A") provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9), and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms. In the event that the terms of this Agreement would subject Employee to any additional tax, penalty or interest under Section 409A (the "409A Penalties"), the Company and Executive shall cooperate good faith to amend the terms of this Agreement to avoid such 409A Penalties, if possible. The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Employee under this Agreement. The Company shall not be liable to Employee for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A. Notwithstanding anything to the contrary set forth herein, no Severance Benefits will be made under this Agreement until Employee has incurred a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)). For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Employee's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

10. **OTHER.** Except as expressly provided in this Agreement and except for the Confidentiality Agreement and other agreements related to Employee's equity, this Agreement supersedes all other understandings and agreements, oral or written, between the Parties and constitutes the sole agreement between the Parties with respect to its subject matter. The Parties acknowledge that no representations, inducements, promises, or agreements, oral or written, have been made by any of the Parties or by anyone acting on behalf of any of the Parties that are not embodied in this Agreement, and no agreement, statement or promise not contained or described in this Agreement shall be valid or binding on the Parties. No change or modification of this Agreement shall be valid or binding on the Parties unless such change or modification is in writing and is signed by the Parties. Employee's or the Company's waiver of any breach of a provision of this Agreement shall not waive any subsequent breach by the other Party. If a court of competent jurisdiction holds that any provision or sub-part thereof contained in this Agreement is invalid, illegal, or unenforceable, that invalidity, illegality, or unenforceability shall not affect any other provision in this Agreement.

This Agreement is intended to avoid all litigation relating to Employee's employment with the Company and Employee's separation therefrom; therefore, it is not to be construed as the Company's admission of any liability to Employee — liability that the Company denies.

This Agreement shall apply to, be binding upon, and inure to the benefit of the Parties' successors, assigns, heirs, and other representatives and be governed by North Carolina law, without regard to the conflicts of laws principles thereof, and the applicable provisions of federal law. The state and federal courts in North Carolina shall be the exclusive venues for the adjudication of all disputes arising out of this Agreement, and Employee consents to the exercise of personal jurisdiction over Employee in any such adjudication and hereby waives any and all objections and defenses to the exercise of such personal jurisdiction.

CAUTION! READ BEFORE SIGNING. THIS AGREEMENT CONTAINS A RELEASE OF ALL CLAIMS.

IN WITNESS WHEREOF, the Parties have entered into this Agreement on the date written below.

EMPLOYEE REPRESENTS THAT EMPLOYEE HAS CAREFULLY READ THE ENTIRE AGREEMENT, UNDERSTANDS ITS CONSEQUENCES, AND VOLUNTARILY ENTERS INTO IT.

_____ _____

NAME Date

LIQUIDIA TECHNOLOGIES, INC.

By: _____ _____

Name: _____ Date

Title: _____

Exhibit 10.24

Execution Copy

EXECUTIVE EMPLOYMENT AGREEMENT

This **EXECUTIVE EMPLOYMENT AGREEMENT** (the "***Agreement***") is entered into effective April 1, 2017 (the "***Effective Date***"), by and between Robert Lippe (the "***Executive***") and Liquidia Technologies, Inc., a Delaware corporation (the "***Company***"). Each of the Company and Executive is a "***Party***" and, collectively, they are the "***Parties***."

Executive desires to continue to provide personal services to the Company in return for certain compensation under this Agreement;

The Parties desire and intend that this Agreement supersede any and all prior employment agreement and understandings between Executive and the Company, and to provide for the employment of Executive upon the terms and conditions set forth herein.

Accordingly, in consideration of the mutual promises and covenants contained herein, the parties agree to the following:

1. EMPLOYMENT BY THE COMPANY.

1.1 **At-Will Employment**. Executive shall be employed by the Company on an "at will" basis, meaning either the Company or Executive may terminate Executive's employment at any time, with or without cause or advance notice. Any contrary representations that may have been made to Executive shall be superseded by this Agreement. This Agreement shall constitute the full and complete agreement between Executive and the Company on the "at will" nature of Executive's employment with the Company, which may be changed only in an express written agreement signed by Executive and a duly authorized officer of the Company. Executive's rights to any compensation following a termination shall be only as set forth in Section 6.

1.2 **Position**. Subject to the terms set forth herein, the Company agrees to employ Executive in the position of Chief Operations Officer, and Executive hereby accepts such employment. Executive will report to the Chief Executive Officer ("***CEO***") and/or such executive designated by the CEO.

1.3 **Duties**. Executive shall faithfully perform all duties of the Company related to the position or positions held by the Executive, including but not limited to all duties set forth in this Agreement and/or in the Bylaws of the Company related to the position or positions held by the Executive and all additional duties that are reasonably prescribed from time to time by the CEO or other designated officers of the Company. Executive shall devote the Executive's full business time and attention to the performance of the Executive's duties and responsibilities on behalf of the Company and in furtherance of its best interests. Executive shall perform Executive's duties under this Agreement principally out of the Company's corporate headquarters. In addition, Executive shall make such business trips at the Company's expense to such places as may be necessary or advisable for the efficient operations of the Company.

1.4 **Company Policies**. The Executive shall comply with all Company policies, standards, rules and regulations (a "***Company Policy***" or collectively, the "***Company Policies***") and all applicable government laws, rules and regulations that are now or hereafter in effect. The Executive acknowledges receipt of copies of all written Company Policies that are in effect as of

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the date of this Agreement. Notwithstanding the foregoing, in the event that the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement shall control.

2. COMPENSATION.

2.1 **Salary**. Executive shall receive a monthly salary of $33,105.91, which equates to $397,271.00 on an annualized basis, payable subject to standard federal and state payroll withholding requirements in accordance with the Company's standard payroll practices ("***Base Salary***"). Executive's Base Salary may be increased from time to time by the Board of Directors of the Company (the "***Board***"). Notwithstanding anything to the contrary, the Base Salary may be reduced if the Board determines such reduction is necessary and justified by the financial condition of the Company and implements an equal percentage reduction in the base salaries of all of the Company's executive officers, but in no event will such reduction be greater than ten percent (10%) of the Base Salary. A reduction in Executive's Base Salary in accordance with the immediately preceding sentence shall not constitute a material substantial diminution in base compensation as described in Section 6.4(b) of this Agreement.

2.2 **Bonus**. During the period Executive is employed with the Company, Executive shall be eligible to earn for Executive's services to be rendered under this Agreement a discretionary annual cash bonus of up to 40% of Base Salary ("***Target Amount***"), subject to review and adjustment by the Company in its sole discretion, payable subject to standard federal and state payroll withholding requirements. Whether or not Executive earns any bonus will be dependent upon (a) Executive's continuous performance of services to the Company through the date any bonus is paid; and (b) the actual achievement by Executive and the Company of the applicable performance targets and goals set by the Board in advance of, or within the first quarter of, each calendar year. The annual period over which performance is measured for purposes of this bonus is January 1 through December 31. The Board will determine in its reasonable discretion the extent to which Executive and the Company have achieved the performance goals upon which the bonus is based and the amount of the bonus, which could be below the Target Amount (and may be zero). Any bonus shall be subject to the terms of any applicable incentive compensation plan adopted by the Company. Any bonus, if earned, will be paid to Executive within the time period set forth in the incentive compensation plan, or if no such time period was established, within two and one-half months following the end of the year during which the bonus is earned.

2.3 **Benefits**. Executive will be eligible to participate on the same basis as similarly situated employees in the Company's benefit plans in effect from time to time during Executive's employment. All matters of eligibility for coverage or benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to change, alter, or terminate any benefit plan in its sole discretion.

2.4 **Expense Reimbursement**. The Company shall reimburse Executive for all customary and appropriate business-related expenses actually incurred and documented in accordance with Company policy, as in effect from time to time. For the avoidance of doubt, to the extent that any reimbursements payable to Executive are subject to the provisions of Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"): (a) any such

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reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, (b) the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and (c) the right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

3. PROPRIETARY INFORMATION, INVENTIONS, NON-COMPETITION AND NON-SOLICITATION OBLIGATIONS. The parties have entered into a Confidentiality, Inventions and Non-Competition (the "***Confidential Information Agreement***"), which may be amended by the parties from time to time without regard to this Agreement. The Confidential Information Agreement contains provisions that are intended by the Parties to survive and do survive termination or expiration of this Agreement.

4. OUTSIDE ACTIVITIES DURING EMPLOYMENT. Except with the prior written consent of the Company, which shall not be unreasonably withheld, Executive will not, while employed by the Company, undertake or engage in any other employment, occupation or business enterprise that would interfere with Executive's responsibilities and the performance of Executive's duties hereunder, except for (i) reasonable time devoted to volunteer services for or on behalf of such religious, educational, non-profit and/or other charitable organization as Executive may wish to serve, (ii) reasonable time devoted to activities in the non-profit and business communities consistent with Executive's duties, (iii) such other activities as may be specifically approved by the Company. This restriction shall not, however, preclude Executive from owning less than one percent (1%) of the total outstanding shares of a publicly traded company, or employment or service in any capacity with Affiliates of the Company. As used in this Agreement, "***Affiliates***" means an entity under common management or control with the Company.

5. NO CONFLICT WITH EXISTING OBLIGATIONS. Executive represents that Executive's performance of all the terms of this Agreement and as an executive of the Company do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

6. TERMINATION OF EMPLOYMENT. The Parties acknowledge that Executive's employment relationship with the Company is at-will. The provisions in this Section govern the amount of compensation, if any, to be provided to Executive upon termination of employment and do not alter this at-will status.

6.1 **Termination by the Company Without Cause**.

(a) The Company shall have the right to terminate Executive's employment with the Company pursuant to this Section 6.1 at any time without "Cause" (as defined in Section 6.2(b) below) by giving notice as described in Section 7.1 of this Agreement. A termination pursuant to Sections 6.3 and 6.5 below is not a termination without "Cause" for purposes of receiving the benefits described in this Section 6.1.

(b) If the Company terminates Executive's employment at any time without Cause and provided that such termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h) a "***Separation from Service***"), then Executive shall be entitled to receive the Accrued Obligations (defined below) and, subject to Executive's compliance with the obligations in Section 6.1(c) below, then Executive shall also be entitled to receive (collectively, the "***Severance Benefits***"):

(i) an amount equal to Executive's then current Base Salary for six (6) months (the "***Severance Period***"), less all applicable withholdings and deductions, paid in equal installments beginning on the Company's first regularly scheduled payroll date following the Release Effective Date (as defined in Section 6.1(c) below), with the remaining installments occurring on the Company's regularly scheduled payroll dates thereafter; and

(ii) payment of the employer portion of the premiums required to continue Executive's group health care coverage under the applicable provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985 ("***COBRA***"), provided that Executive elects to continue and remains eligible for these benefits under COBRA, until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A) through (C), the "***COBRA Payment Period***"). Notwithstanding the foregoing, if at any time the Company determines in its sole discretion that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Internal Revenue Code, as amended, or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings for the remainder of the COBRA Payment Period, regardless of whether Executive elects COBRA coverage (the "***Special Severance Payment***"). Executive may, but is not obligated to, use such Special Severance Payment toward the cost of COBRA premiums. If Executive becomes eligible for coverage under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Payment Period, Executive must immediately notify the Company of such event, and all payments and obligations under this clause will cease.

(c) Executive will be paid all of the Accrued Obligations on the Company's first payroll date after Executive's date of termination from employment or earlier if required by law. Executive shall receive the Severance pursuant to Section 6.1(b) of this Agreement if: (i) Executive signs and delivers to the Company an effective, general release of claims in favor of the Company and its affiliates and representatives, in a form acceptable to the Company (the "***Release***"), by the 60th day following the termination date or such earlier date as set forth in the Release, which cannot be revoked in whole or part (if applicable) by such date or such earlier date as set forth in the Release (the date that the Release can no longer be revoked is referred to as the "***Release Effective Date***"); (ii) if Executive holds any other positions with the Company, Executive resigns such position(s) to be effective no later than the date of Executive's termination date (or such other date as requested by the Board); (iii) Executive returns all

Company property; (iv) Executive complies with all post-termination obligations under this Agreement and the Confidential Information Agreement; and (v) Executive complies with the terms of the Release, including without limitation any non-disparagement and confidentiality provisions contained in the Release. To the extent that any severance payments are deferred compensation under Section 409A of the Code, and are not otherwise exempt from the application of Section 409A, then, if the period during which Executive may consider and sign the Release spans two calendar years, the payment of Severance will not be made or begin until the later calendar year.

(d) For purposes of this Agreement, "***Accrued Obligations***" are (i) Executive's accrued but unpaid salary through the date of termination, (ii) any unreimbursed business expenses incurred by Executive payable in accordance with the Company's standard expense reimbursement policies, and (iii) benefits owed to Executive under any qualified retirement plan or health and welfare benefit plan in which Executive was a participant in accordance with applicable law and the provisions of such plan.

(e) The Severance provided to Executive pursuant to this Section 6.1 is in lieu of, and not in addition to, any benefits to which Executive may otherwise be entitled under any Company severance plan, policy or program.

(f) Any damages caused by the termination of Executive's employment without Cause would be difficult to ascertain; therefore, the Severance for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.2 **Termination by the Company for Cause**.

(a) Subject to Section 6.2(c) below, the Company shall have the right to terminate Executive's employment with the Company at any time for Cause by giving notice as described in Section 7.1 of this Agreement.

(b) "***Cause***" for termination shall mean that the Company has determined in its sole discretion that the Executive has engaged in any of the following: (i) any material breach of the terms of this Agreement by Executive, or the willful failure of Executive to diligently and properly perform Executive's material duties for the Company; (ii) Executive's misappropriation or unauthorized use of the Company's tangible or intangible property that causes or is likely to cause material harm to the Company or its reputation, or material breach of the Confidential Information Agreement or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (iii) any material failure to comply with the Company Policies or any other policies and/or directives of the Board; (iv) Executive's use of illegal drugs or any illegal substance, or Executive's use of alcohol in any manner that materially interferes with the performance of the Executive's duties under this Agreement; (v) any dishonest or illegal action (including, without limitation, embezzlement) or any other action, whether or not dishonest or illegal, by Executive which is materially detrimental to the interest and well-being of the Company, including, without limitation, harm to its reputation; (vi) Executive's failure to fully disclose any material conflict of interest the Executive may have with the Company in a transaction between the Company and any third party which is materially detrimental to the interest

and well-being of the Company; (vii) any adverse action or omission by Executive which would be required to be disclosed pursuant to public securities laws or which would limit the ability of the Company or any entity affiliated with the Company to sell securities under any Federal or state law or which would disqualify the Company or any affiliated entity from any exemption otherwise available to it; or (viii) Executive's violation of the Company's Policies prohibiting unlawful harassment, discrimination, retaliation or workplace violence; *provided, however*, that prior to any termination of Executive for "Cause," if the grounds for such Cause are reasonably capable of cure by Executive, the Company shall provide Executive with written notice of the grounds for Cause and provide Executive with ten (10) business days in which to cure such Cause.

(c) In the event Executive's employment is terminated at any time for Cause, Executive will not receive Severance or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.3 **Resignation by Executive.**

(a) Executive may resign from Executive's employment with the Company at any time by giving notice as described in Section 7.1.

(b) In the event Executive resigns from Executive's employment with the Company for any reason (other than a resignation for Good Reason as described in Section 6.4 below), Executive will not receive Severance or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.4 **Resignation by Executive for Good Reason.**

(a) Provided Executive has not previously been notified of the Company's intention to terminate Executive's employment, Executive may resign from employment with the Company for Good Reason (as defined in Section 6.4(b) below).

(b) "***Good Reason***" for resignation shall mean the occurrence of any of the following without Executive's prior consent: (i) a material diminution in Executive's authority, duties or responsibilities; (ii) a material diminution in Executive's base compensation; (iii) a requirement that Executive report to an employee other than the CEO; (iv) the Company materially breaches its obligations under this Agreement; or (v) Executive's principle place of employment is relocated by more than fifty (50) miles from the Company's present location in Research Triangle Park, North Carolina. In addition to any requirements set forth above, in order for any of the above events to constitute "Good Reason," Executive must (X) inform the Company of the existence of the event within ninety (90) days of the initial existence of the event, after which date the Company shall have no less than thirty (30) days to cure the event which otherwise would constitute "Good Reason" hereunder and

(Y) Executive must terminate his employment with the Company for such "Good Reason" no later than ninety (90) days after the initial existence of the event which prompted the Executive's termination. Any actions taken

by the Company to accommodate a disability of Executive or pursuant to the Family and Medical Leave Act shall not be a Good Reason for purposes of this Agreement.

(c) In the event Executive resigns from Executive's employment for Good Reason, and provided that such termination constitutes a Separation from Service, then subject to Executive's compliance with the obligations in Section 6.1(c) above, Executive shall be eligible to receive the same payments and benefits as described in Section 6.1 and on the same terms and conditions set forth in Section 6.1(c) and Section 6.1(e) as if Executive had been terminated by the Company without Cause.

(d) Any damages caused by the termination of Executive's employment for Good Reason would be difficult to ascertain; therefore, the Severance for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.5 **Termination by Virtue of Death, Disability of Executive, or Discontinuation of Business.**

(a) In the event of Executive's death while employed pursuant to this Agreement, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

(b) Subject to applicable state and federal law, the Company shall at all times have the right, upon written notice to Executive, to terminate this Agreement based on Executive's Disability. Termination by the Company of Executive's employment based on "***Disability***" shall mean termination because Executive a qualified medical doctor mutually acceptable to the Company and Executive or Executive's personal representative has certified in writing that: (A) Executive is unable, because of a medically determinable physical or mental disability, to perform the essential functions of Executive's job, with or without a reasonable accommodation, for more than one hundred and eighty (180) calendar days measured from the last full day of work; or (B) by reason of mental or physical disability, it is unlikely that Executive will be able, within one hundred and eighty (180) calendar days, to resume the essential functions of Executive's job, with or without a reasonable accommodation, and to otherwise discharge the Executive's duties under this Agreement. This definition shall be interpreted and applied consistent with the Americans with Disabilities Act, the Family and Medical Leave Act, and other applicable law. In the event Executive's employment is terminated based on Executive's Disability, Executive will not receive Severance or any other severance compensation or benefit, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

(c) In the event the Company's business is discontinued because rendered impracticable by substantial financial losses, lack of funding, legal decisions, administrative rulings, declaration of war, dissolution, national or local economic depression or crisis or any reasons beyond the control of the Company, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

6.6 **Cooperation With Company After Termination of Employment**. Following termination of Executive's employment for any reason and for a period of two years thereafter, Executive agrees to cooperate (a) with the Company in (i) the defense of any legal matter involving any matter that arose during Executive's employment with the Company, and (ii) all matters relating to the winding up of Executive's pending work and the orderly transfer of any such pending work to such other employees as may be designated by the Company; and (b) with all government authorities on matters pertaining to any investigation, litigation or administrative proceeding pertaining to the Company. The Company will reimburse Executive for any reasonable travel and out of pocket expenses incurred by Executive in providing such cooperation. The Company will also pay Executive a per diem of $1,088 for each day or partial day that Executive devotes to fulfilling his obligation to cooperate under this Section 6.6, unless Executive is then receiving continued payment of his Base Salary under 6.1(b)(i), above.

6.7 **Application of Section 409A**.

(a) It is intended that all of the severance payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively, "***Section 409A***") provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9), and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms.

(b) The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Executive under this Agreement. The Company shall not be liable to Executive for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A.

(c) No severance payments will be made under this Agreement unless Executive's termination of employment constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

(d) For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Executive's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

(e) If the Company determines that the severance benefits provided under this Agreement constitutes "deferred compensation" under Section 409A and if Executive is a "specified employee" of the Company, as such term is defined in Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation from Service, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Severance will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's Separation from Service, and (ii) the date of Executive's death

(such earlier date, the "***Delayed Initial Payment Date***"), the Company will (1) pay to Executive a lump sum amount equal to the sum of the Severance that Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Severance had not been delayed pursuant to this Section 6.7, and (2) commence paying the balance of the Severance in accordance with the applicable payment schedule set forth in Section 6.1. No interest shall be due on any amounts deferred pursuant to this Section 6.7.

7. GENERAL PROVISIONS.

7.1 **Notices**. Any notices required hereunder to be in writing shall be deemed effectively given: (a) upon personal delivery to the Party to be notified, (b) when sent by electronic mail or confirmed facsimile if sent during normal business hours of the recipient, and if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at its primary office location and to Executive at Executive's address as listed on the Company payroll, or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other.

7.2 **Severability**. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.3 **Survival**. Provisions of this Agreement which by their terms must survive the termination of this Agreement in order to effectuate the intent of the Parties will survive any such termination, whether by expiration of the term, termination of Executive's employment, or otherwise, for such period as may be appropriate under the circumstances.

7.4 **Waiver**. If either Party should waive any breach of any provisions of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 **Complete Agreement**. This Agreement constitutes the entire agreement between Executive and the Company with regard to the subject matter hereof. This Agreement is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter and supersedes any prior oral discussions or written communications and agreements. This Agreement is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in writing signed by Executive and an authorized officer of the Company. The Parties have entered into a separate Confidential Information Agreement and have entered or may enter into separate agreements related to equity. These separate agreements govern other

aspects of the relationship between the Parties, have or may have provisions that survive termination of Executive's employment under this Agreement, may be amended or superseded by the Parties without regard to this

Agreement and are enforceable according to their terms without regard to the enforcement provision of this Agreement.

7.6 **Headings**. The headings of the sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.7 **Successors and Assigns**. The Company shall assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any company or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said Company or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a Party, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder, other than to Executive's estate upon death.

7.8 **Withholding**. All amounts payable hereunder shall be subject to applicable tax withholding.

7.9 **Choice of Law**. This Agreement in all respects shall be governed by and interpreted in accordance with the laws of the State of North Carolina, both procedural and substantive, without regard to conflicts of law, except to the extent that federal laws and regulations preempt otherwise applicable law.

7.10 **Mandatory Mediation**. Prior to and as a condition of either Party's filing suit in state or federal court, the Parties shall engage in a mediated settlement conference in accordance with the North Carolina Superior Court Rules Implementing Statewide Mediation. The Parties shall mediate in good faith until settlement is reached or an impasse is declared by the mediator.

7.11 **Jurisdiction**. Each Party hereby irrevocably submits to the exclusive jurisdiction of the United States District Court located in Wake County, North Carolina, or any state court located within such state, in respect of any claim relating to this Agreement, and hereby waives, and agrees not to assert, as a defense in any action, suit or proceeding in which any such claim is made that it is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in such courts or that the venue thereof may not be appropriate or that this Agreement may not be enforced in or by such courts. Any appellate proceedings shall take place in the appropriate courts having appellate jurisdiction over the courts set forth in this Section.

7.12 **Counterparts**. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one Party, but all of which taken together will constitute one and the same Agreement. Facsimile signatures and signatures transmitted by PDF shall be equivalent to original signatures.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

Execution Copy

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first written above.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Neal F. Fowler
Name: Neal F. Fowler
Title: Chief Executive Officer

Executive:

/s/ Robert Lippe
Robert Lippe

Exhibit A

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

THIS CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT (this "**Agreement**") is effective as of DATE (the "**Effective Date**") by and between NAME (hereinafter "**Employee**") and Liquidia Technologies, Inc. (the "**Company**").

STATEMENT OF PURPOSE

The Employee desires to be employed by the Company, and the Company is willing to employ Employee strictly subject to Employee's agreement to be bound by the terms of this Agreement.

IN CONSIDERATION of the Company's employment of the Employee and the compensation and other benefits that the Company may provide to Employee as an employee, the Employee, intending to be legally bound, agrees to the following:

1. For purposes of this Agreement, "**Proprietary Information**" is information (whether in written or other form or whether or not patentable or protectable by copyright, trade secret, trade dress, trademark, or the like) that: (i) has been created, invented, discovered, or developed by the Employee in connection with the Employee's employment by the Company; (ii) is non-public and has been disclosed, furnished, or communicated to the Employee in connection with the Employee's employment by the Company; or (iii) is non-public and the unauthorized disclosure of which could be detrimental to the interests of the Company. Proprietary Information includes, but is not limited to, all inventions, works of authorship, trade secrets, know how, proprietary or confidential information, including, but not limited to, research, product or business plans, products, services, projects, proposals, processes, formulas, ideas, data, compositions, technology, computer programs and related source code and object code, developments, designs, drawings, marketing information and plans, customer lists, budgets, projections, partners, cost analyses, acquisition candidates, relevant parts of analysis, reviews, compilations, studies or other records and documents, and other information owned by the Company, disclosed to the Employee, or to which the Employee has been provided access or gains access, either directly or indirectly, by any means. Proprietary Information does not include information that is or becomes generally available to the public other than as a result of a disclosure by the Employee or by any other person or entity that is under a confidentiality obligation to Company with respect to such information.

2. Nondisclosure of Proprietary Information.

2.1 The Employee acknowledges and agrees that Proprietary Information is the sole property of the Company or its designee and that the Employee shall have no right,

title, license, or interest in or to any Proprietary Information. During and after the Employee's employment by the Company, the Employee shall keep in the strictest confidence and trust all Proprietary Information and shall not directly or indirectly disclose, distribute, copy, supply, or use, in whole or in part, any Proprietary Information except as approved in advance in writing by the Company. Notwithstanding the foregoing, it is understood that, at all such times, the Employee is free (i) to use information which was known to the Employee prior to employment with the Company or which is generally known in the trade or industry through no breach of this Agreement or other act or omission by the Employee, (ii) to discuss the terms of the Employee's employment, wages and working conditions to the extent expressly protected by applicable law, (iii) to report possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, (iv) to respond to inquiries from, or otherwise cooperate with, any governmental or regulatory investigation, or (v) to testify truthfully as compelled by lawful process or subpoena related to such testimony after the Employee has provided advance written notice of said subpoena to the Company's Chief Executive Officer and reasonably cooperates with the Company in any process to oppose said subpoena.

2.2 The Employee shall not use or disclose to the Company, or assist in the disclosure to the Company of, proprietary or confidential information belonging to any third parties, including any prior employer(s).

2.3 The Employee acknowledges and agrees that the Company has received and in the future may receive from third parties, including, but not limited to, potential collaborating partners or customers of the Company, confidential or proprietary information ("**Third Party Information**") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of the Employee's employment with the Company and thereafter, the Employee will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel or the Company's designee who need to know such information in connection with their work for the Company or such third party) or use Third Party Information, except in connection with the Employee's work for the Company or such third party, unless expressly approved in advance in writing by the Company. The Employee further agrees to be bound by and subject to any confidentiality or nondisclosure agreements or clauses with respect to such Third Party Information between the Company and any such third party.

2.4 Pursuant to the Defend Trade Secrets Act of 2016, the Employee acknowledges that the Employee will not have criminal or civil liability under any federal or state trade secret law for the disclosure of a trade secret that (i) is made (a) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and (b) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if the Employee files a lawsuit for retaliation by the Company for reporting a suspected violation of law, the Employee may

disclose the trade secret to the Employee's attorney and may use the trade secret information in the court proceeding, if the Employee (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

3. Upon the earliest to occur of (i) termination of the Employee's employment by the Company for any reason, (ii) termination of the Employee's access to Proprietary Information, or (iii) the request of the Company, the Employee shall return to the Company (and will not keep in Employee's possession or control or deliver to anyone else) all materials belonging to the Company, whether kept at the Employee's business office, personal residence or otherwise, including, but not limited to, all materials containing or relating to any Proprietary Information in any written, tangible, electronic or other form that the Employee may have in Employee's possession or control, and any and all mobile telephones, personal digital assistants, pagers, computer and other electronic devices and credit cards. After returning the materials and equipment described in the preceding sentence to the Company, the Employee shall not retain any copies of any such materials.

4. Ownership of Proprietary Information.

4.1 All Proprietary Information and other information, which by its nature is proprietary to the Company, relating to the Company's business or the Company's anticipated business, or based on, derived from or relating to any Proprietary Information (collectively, Proprietary Information and "**Work Product**") shall be the sole property of the Company. The Employee agrees that all Proprietary Information and Work Product created, conceived, reduced to practice, made or otherwise developed by the Employee, solely or jointly, during and in any way related to the Employee's employment, shall be the exclusive property of the Company and/or its designees or assignees, and shall be deemed "works made for hire," as that term is defined in Section 101 of the U.S. Copyright Act of 1976, as amended.

4.2 If, for any reason, any Proprietary Information and Work Product does not qualify as works made for hire, the Employee shall assign and does hereby irrevocably, unconditionally, and without encumbrance of any kind assign to the Company, and forever waives and agrees never to assert, all right, title, and interest, including without limitation, all patent, trademark, copyright, trade secret, and other intellectual property (collectively, "**Intellectual Property**") rights, in and to such Proprietary Information and Work Product. The Employee shall assist the Company, or its designee, in every proper way to secure the Company's rights in the Proprietary Information and Work Product and any Intellectual Property rights relating thereto in any and all countries, including (i) the disclosure to the Company of all pertinent information and data with respect thereto, (ii) the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company or its designee the sole and exclusive right, title and interest in and to the Proprietary Information and Work Product, and (iii) the defense of any claim, demand, action, litigation, suit, or other proceeding,

including, but not limited to, interference, cancellation, opposition, or other proceedings in respect of such applications or any registrations or patents issuing therefrom. The Employee shall continue such assistance after the termination of the Employee's employment by the Company.

4.3 During the Employee's employment by the Company, the Employee shall report promptly to the Company all Proprietary Information and Work Product created, conceived, reduced to practice, or otherwise developed by the Employee, solely or jointly.

4.4 If the Company is unable because of the Employee's mental or physical incapacity or for any other reason to secure the Employee's signature to apply for or to secure protection of any Proprietary Information and Work Product, then the Employee hereby designates and appoints the Company and its duly authorized officers and agents as its agents and attorneys-in-fact to execute and file any certificates, applications or documents and to do all of their lawful acts necessary to perfect and protect the Company's rights in the Proprietary Information and Work Product. The Employee expressly acknowledges that the foregoing power of attorney is coupled with an interest and is therefore irrevocable and shall survive the Employee's death or incompetency and the termination of the Employee's employment or engagement by the Company.

4.5 The Employee hereby represents and warrants that the Employee has fully disclosed to the Company on Schedule A attached hereto any idea, invention, discovery or process relating to the Company's business which, prior to the Employee's employment with the Company, the Employee conceived, reduced to practice, or developed, individually or jointly, and is to be excluded from the scope of this Agreement.

4.6 Notwithstanding anything in this Agreement to the contrary, the obligation of the Employee to assign or offer to assign the Employee's rights in an invention to the Company shall not extend or apply to an invention that the undersigned developed (i) entirely on the Employee's own time; (ii) without using Company equipment, supplies, facilities, or other resources, Proprietary Information or trade secret information unless such invention (a) relates to the Company's business or actual or demonstrably anticipated research or development, or (b) results from any work performed by the Employee for the Company. The Employee shall bear the burden of proof in establishing that the Employee's invention qualifies for exclusion under this Section 4.6.

5. Covenant Not To Compete.

5.1 For purposes of Part 5 of this Agreement, including each of its subparts, the following terms shall have the following meanings:

a. "**Competing Business**" shall mean any corporation, partnership, person, or other entity that is researching, developing, manufacturing, marketing, distributing, or selling any product, service, or technology that is competitive with any part of the Company's Business.

b. The "**Company's Business**" shall mean the development, manufacture, marketing, distribution, or sale of, including research directed to, any product, service, or technology that the Company is developing, manufacturing, marketing, distributing, or selling or to which the Company directed research at any time during Employee's employment with the Company. As of the date of this Agreement, the Company's Business includes, but is not limited to, research directed to and the development, manufacture, marketing, distribution, and/or sale of: (i) isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold; (ii) size and/or shape controllable pharmaceutical or therapeutic particles molded using a polymer or low surface energy mold; (iii) film based products of or containing arrays of size and/or shape controlled structures molded from a low surface energy mold; (iv) isolated nano or micro size and/or shape controlled particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled particles fabricated from a mold; (v) nano or micro size and/or shape controllable particles molded using a polymer or low surface energy mold; or (vi) patterned drum fabrication and mold for manufacturing the products of (i)-(v) above. The Employee understands that during the Employee's employment with the Company, the Company's Business may expand or change, and the Employee agrees that any such expansions or changes shall expand or contract the definition of the Company's Business and the Employee's obligations under this Agreement accordingly.

c. "**Territory**" shall mean the following severable geographic areas: (i) the world, (ii) any country in which the Company or a Competing Business is engaged in business, (iii) any country in which the Company is engaged in business, (iv) the United States, Europe, and Asia, (v) the United States, (vi) any state, including the District of Columbia, in which the Company or a Competing Business is engaged in business, (vii) any state, including the District of Columbia, in which the Company is engaged in business, (viii) North Carolina, (ix) a one hundred mile radius of the Employee's principal place of employment or work for the Company, or (x) a one hundred mile radius of the Company's corporate headquarters.

5.2 It is recognized and understood by the Employee that, through the Employee's association with the Company, the Employee shall: (i) have access to trade secrets and confidential information of the Company, including, but not limited to, valuable information about its intellectual property, business operations and methods, and the persons with which it does business in various locations throughout the world, that is not generally known to or readily ascertainable by the Company's competitors, (ii) develop relationships with the Company's customers and others with which the Company does business, and these relationships are among the Company's most important assets, (iii) receive specialized knowledge of and specialized training in the Company's Business, and (iv) gain such knowledge of the Company's Business that, during the course of the Employee's employment with the Company and for a period of one year following the termination thereof, the Employee could not perform services for a Competing Business

without inevitably disclosing the Company's trade secrets and Proprietary Information to that Competing Business.

5.3 While employed by the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise) for any Competing Business, (ii) engage in any activities (or assist others to engage in any activities) that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing or prospective customers, suppliers, business partners, or contractors of the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (v) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company.

5.4 For a period of one year following the termination of the Employee's employment with the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise), within the Territory for any Competing Business, that are the same or substantially similar to any services that the Employee performed for the Company or that otherwise utilize skills, knowledge, and/or business contacts and/or relationships that the Employee developed while providing services to the Company, (ii) engage in any activities (or assist others to engage in any activities) within the Territory that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or any prospective customers to whom the Company has made a written proposal ("Prospective Customers"), suppliers, business partners, or contractors of the Company, during the last year of the Employee's employment with the Company, to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, (v) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or Prospective Customers, suppliers, business partners, or contractors of the Company with which the Employee worked or had business contact during the last year of the Employee's employment with the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (vi) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company. Where a Competing Business is a large enterprise with separately operated business units, the restrictions in Section 5.4(i) shall not apply to any such business unit that has no involvement in the research, development, manufacture, marketing, distribution, or sale of a product, service, or technology that is competitive with any part of the Company's Business; *provided, however*, that this sentence does not apply to any employees in a scientific role or whose role involves the research, development or maintenance of the Company's trade secrets. These obligations will continue for the specified period regardless of whether the termination of the Employee's

employment was voluntary or involuntary or with or without cause, and the specified period shall be tolled and shall not run during any time in which the Employee fails to abide by this obligations.

5.5 The Employee shall not at any time following the termination of the Employee's employment with the Company use the name or trading style of the Company in any country, or use in any country any name or trading style which is the same as or similar to any of the trade or service marks of the Company or any brand name or proposed brand name of any of the Company's products or proposed products, or represent himself or herself as carrying on or continuing or being connected with the Company or its business for any purpose whatsoever unless otherwise agreed by the Company in writing.

5.6 While employed by the Company, the Employee shall disclose to the audit committee of the Company the Employee's interest in respect of any contract or arrangement in which the Employee has any personal material interest, directly or indirectly, or any conflicts of interest (including the conflict of interest that may arise from the Employee's directorship(s) or executive position or personal investments in any corporation(s)) that may involve the Employee. Upon such disclosure, the Employee shall abstain from voting in respect of any such contract, arrangement, proposal, transaction, or matter in which the conflict of interest arises, unless and until the audit committee has determined that no such conflict of interest exists.

5.7 As an exception to the restrictions set forth in Parts 5.3 and 5.4 herein, the Employee may own passive investments in a Competing Businesses, (including, but not limited to, indirect investments through mutual funds), provided that the securities of the Competing Business are publicly traded and the Employee does not own or control more than two percent of the outstanding voting rights or equity of the Competing Business.

5.8 In the event that a court determines that the length of time, the geographic area, or the activities prohibited under this Agreement are too restrictive to be enforceable, the Court may reduce the scope of the restriction to the extent necessary to make the restriction enforceable.

5.9 The market for the Company's services and the Company's Business is highly specialized and highly competitive such that other companies and business entities compete with the Company in various locations throughout the world. The provisions set forth in this Agreement: (i) are reasonably necessary to protect the Company's legitimate business interests, (ii) are reasonable as to the time, territory, and scope of activities that are restricted, (iii) do not interfere with the Employee's ability to earn a comparable living or secure employment in the field of the Employee's choice, (iv) do not interfere and are not inconsistent with public policy or the public interest, and (v) are described with sufficient accuracy and definiteness to enable the Employee to understand the scope of the restrictions on the Employee.

5.10 Because of the unique nature of the Proprietary Information, the Employee understands and agrees that the Company will suffer irreparable harm in the event that the Employee fails to comply with any of the Employee's obligations under this Agreement and that monetary damages will be inadequate to compensate the Company for such breach. Accordingly, the Employee agrees that the Company will, in addition to any other remedies available to it at law or in equity, be entitled to injunctive relief to enforce the terms of this Agreement.

6. The Employee hereby authorizes the Company to provide a copy of this Agreement, including any exhibits hereto, to any and all of the Employee's future employers and to notify any and all such future employers that the Company intends to exercise its legal rights arising out of or in connection with this Agreement and/or any breach or any inducement of a breach hereof.

7. The Employee agrees that, during the term of the Employee's employment with the Company, the Employee will not: (i) engage in any other employment, occupation, consulting, or other business activity that conflicts with the Employee's obligations to the Company, or (ii) engage in any other activities that conflict with the Employee's obligations to the Company.

8. Debarment Certification

8.1 The Employee represents and promises that Employee:

(a) is not presently, and during the Employee's employment will not be, debarred or convicted for a crime for which Employee can be debarred under the Generic Drug Enforcement Act of 1992 (21USC335a)(the "**Act**"); and

(b) is not presently, and during the Employee's employment will not be, indicted or otherwise criminally or civilly charged by a government entity (Federal or State) with commission of the kinds of conduct for which Employee can be debarred under the Act; and

(c) will not employ or otherwise engage any individual who has been (i) debarred or (ii) convicted of a crime for which a person can be debarred under the Act, in any capacity in connection with the activities of developing or reporting data which may become part of an application for approval of a drug or biologic.

8.2 The Employee promises that, during the Employee's employment with the Company, the Employee will promptly notify the Company upon learning of or having a belief that the Employee cannot satisfy the obligations of Section 8.1 above.

9. The Employee agrees that this Agreement shall be enforced, construed and interpreted under the law of the state of North Carolina, without regard to the conflicts of laws principles thereof. The state and federal courts in North Carolina shall be the exclusive venues for the adjudication of all disputes arising out of this Agreement, and the Employee consents to the exercise of personal jurisdiction over the Employee in any such adjudication and hereby waives any and all objections and defenses to the exercise of such personal jurisdiction.

10. The Employee agrees that: (i) the Employee's employment relationship with the Company is "at-will," which means that either the Employee or the Company can terminate the relationship at any time for any reason or no reason, with or without notice, unless the Employee and the Company are parties to a contract that expressly provides a fixed term of employment, (ii) the Employee's employment relationship with the Company is contingent upon the Employee's execution of this Agreement, which is a material inducement to the Company to offer the employment relationship to the Employee and to provide Proprietary Information to the Employee, and (iii) this Agreement shall survive any termination for any reason whatsoever of the Employee's employment relationship with the Company.

11. The Employee agrees that the Company's failure to insist upon strict compliance with any provision of this Agreement shall not be deemed a waiver of such provision or of any other provision in the Agreement. The provisions of this Agreement shall be enforceable, notwithstanding the existence of any breach of this Agreement by the Company or of any claim by the Employee against the Company, whether predicated on this Agreement or otherwise.

12. This Agreement contains the entire understanding between the parties with respect to the subject matter hereof and supersedes all prior or contemporary agreements or understandings, whether written or oral, with respect thereto, provided, however, prior to the execution of this Agreement, if Company and the Employee were parties to any agreement regarding the subject matter hereof, that agreement will be superseded by this Agreement prospectively only. This Agreement may not be modified or amended except by an agreement in writing signed by both parties.

13. The Employee agrees that this Agreement is assignable by the Company at the Company's discretion and the Employee authorizes the Company's successors and assigns to enforce this Agreement for their respective benefits.

14. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

15. The Employee agrees that a breach of any provision(s) of this Agreement will toll the running of the limitation period with respect to such provision(s) for as long as such breach occurs.

16. The Employee agrees and acknowledges that the Company's agreement to employ the Employee, in and of itself, is sufficient and adequate consideration for the Employee's promises and obligations hereunder, and that the compensation and other benefits that the Company provides the Employee during the course of the Employee's employment are, independently and collectively, sufficient and adequate consideration for the Employee's promises and obligations hereunder.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Employee has executed this Agreement to be effective as of the date set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____(s)
Name:
Title:

_____(s)
NAME

SCHEDULE A

The following items are inventions, ideas, computer software programs or other equipment or technology not covered by Section 4 of this Agreement, which the undersigned conceived of or developed, wholly or in part, prior to the Employee's employment or engagement with the Company and shall be excluded from the scope of this Agreement.

If the undersigned has no such items to disclose, write "NONE" on this line: .

Description of Items: (if applicable)

Title on Document	Date on Document	Name of Witness on Document

LIQUIDIA TECHNOLOGIES, INC.

By: _____ NAME _____

Dated: _____ Dated: _____

Exhibit 10.25

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This **AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT** (the "***Agreement***") is entered into on , 2018, by and between Robert Lippe ("***Executive***") and Liquidia Technologies, Inc., a Delaware corporation (the "***Company***"). Each of the Company and Executive is a "***Party***" and, collectively, they are the "***Parties***."

The Company and Executive entered into an Executive Employment Agreement dated April 1, 2017 (the "***Prior Agreement***"); and

The Company intends to file a registration statement on Form S-1 under the Securities Act of 1933, registering for sale to the public shares of its common stock, par value $0.001 per share (the "***Registration Statement***"); and

Upon the "effective date" of the Registration Statement, as declared by the U.S. Securities and Exchange Commission (the "***Effective Date***"), the Parties wish to have this Agreement amend, restate and supersede the Prior Employment Agreement; and

The Parties agree that this Agreement supersedes any and all prior employment agreement and understandings between the Parties and to provide for the employment of Executive upon the terms and conditions set forth herein.

Accordingly, in consideration of the mutual promises and covenants contained herein, the Parties agree to the following:

1. EMPLOYMENT BY THE COMPANY.

1.1 **At-Will Employment**. Executive shall be employed by the Company on an "at will" basis, meaning either the Company or Executive may terminate Executive's employment at any time, with or without cause or advance notice. Any contrary representations that may have been made to Executive shall be superseded by this Agreement. This Agreement shall constitute the full and complete agreement between Executive and the Company on the "at will" nature of Executive's employment with the Company, which may be changed only in an express written agreement signed by Executive and a duly authorized officer of the Company. Executive's rights to any compensation following a termination shall be only as set forth in Section 6.

1.2 **Position**. Subject to the terms set forth herein, the Company agrees to employ Executive in the position of Chief Operations Officer, and Executive hereby accepts such employment. Executive will report to the Chief Executive Officer ("***CEO***") and/or such Company officers or directors designated by the CEO.

1.3 **Duties**. Executive shall faithfully perform all duties of the Company related to the position or positions held by Executive, including but not limited to all duties set forth in this Agreement and/or in the Bylaws of the Company related to the position or positions held by Executive and all additional duties that are reasonably prescribed from time to time by the CEO or other designated officers or directors of the Company. Executive shall devote Executive's full business time and attention to the performance of Executive's duties and responsibilities on behalf of the Company and in furtherance of its best interests. Executive shall perform Executive's duties under this Agreement principally out of the Company's corporate headquarters in North Carolina. In addition, Executive shall make such business trips at the Company's expense to such places as may be necessary or advisable for the efficient operations of the Company.

1.4 **Company Policies**. Executive shall comply with all Company policies, standards, rules and regulations (a "***Company Policy***" or collectively, the "***Company Policies***")

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and all applicable government laws, rules and regulations that are now or hereafter in effect. Executive acknowledges receipt of copies of all written Company Policies that are in effect as of the date of this Agreement. Notwithstanding the foregoing, in the event that the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement shall control.

2. COMPENSATION.

2.1 **Salary**. Executive shall receive a monthly salary of $34,099.08, which equates to $409,189.00 on an annualized basis, payable subject to standard federal and state payroll withholding requirements in accordance with the Company's standard payroll practices ("***Base Salary***"). Executive's Base Salary may be increased from time to time by the Board of Directors of the Company (the "***Board***"). Notwithstanding anything to the contrary, the Base Salary may be reduced if the Board determines such reduction is necessary and justified by the financial condition of the Company and implements an equal percentage reduction in the base salaries of all of the Company's executive officers, but in no event will such reduction be greater than ten percent (10%) of the Base Salary. A reduction in Executive's Base Salary in accordance with the immediately preceding sentence shall not constitute a material diminution in Base Salary as described in Section 6.4(b) of this Agreement.

2.2 **Bonus**. During the period Executive is employed with the Company, Executive shall be eligible to earn a discretionary annual cash bonus of up to 40% of Base Salary ("***Target Amount***"), subject to review and adjustment by the Company in its sole discretion, pursuant to the terms of the Liquidia Technologies, Inc. Annual Cash Bonus Plan, as amended by the Company from time to time (the "***Bonus Plan***"), or its successor plan. Any bonus, if earned, will be paid to Executive within the time period set forth in the Bonus Plan.

2.3 **Benefits**. Executive will be eligible to participate on the same basis as similarly situated employees in the Company's benefit plans in effect from time to time during Executive's employment. All matters of eligibility for coverage or benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to change, alter, or terminate any benefit plan in its sole discretion.

2.4 **Expense Reimbursement**. The Company shall reimburse Executive for all customary and appropriate business-related expenses actually incurred and documented in accordance with Company Policy, as in effect from time to time. For the avoidance of doubt, to the extent that any reimbursements payable to Executive are subject to the provisions of Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"): (a) any such reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, (b) the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and (c) the right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

3. PROPRIETARY INFORMATION, INVENTIONS, NON-COMPETITION AND NON-SOLICITATION OBLIGATIONS. The Parties have entered into a Confidentiality, Inventions and Non-Competition Agreement (the "***Confidential Information Agreement***"), which may be amended by the Parties from time to time without regard to this Agreement. The Confidential

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Information Agreement contains provisions that are intended by the Parties to survive and do survive termination of this Agreement.

3.1 **Permissible Communications**. Notwithstanding anything to the contrary in the Confidential Information Agreement, Executive acknowledges that nothing in the Confidential Information Agreement shall be construed to prohibit Executive from (a) filing a charge or complaint with, or participating in any proceeding before, a government agency authorized to enforce and investigate suspected violations of federal anti-discrimination laws, labor relations laws, occupational health and safety laws, wage and hour laws, and such similar state or local laws; (b) reporting possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, or (c) responding truthfully to inquiries from, or otherwise cooperating with, any governmental or regulatory investigation (the activities set forth in clauses (a) through (c) are collectively referred to as the "***Protected Activities***"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company; *provided*, *however*, that Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Proprietary Information under the Confidential Information Agreement to any parties other than the appropriate government agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications, and that any such disclosure without the Company's written consent shall constitute a material breach of this Agreement.

3.2 **Defend Trade Secrets Act.** Pursuant to the Defend Trade Secrets Act of 2016, Executive acknowledges that Executive will not have criminal or civil liability under any Federal or State trade secret law for the disclosure of a trade secret that (a) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney and may use the trade secret information in the court proceeding, if Executive (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

4. OUTSIDE ACTIVITIES DURING EMPLOYMENT. Except with the prior written consent of the Company, which shall not be unreasonably withheld, Executive will not, while employed by the Company, undertake or engage in any other employment, occupation or business enterprise that would interfere with Executive's responsibilities and the performance of Executive's duties hereunder, except for (i) reasonable time devoted to volunteer services for or on behalf of such religious, educational, non-profit and/or other charitable organization as Executive may wish to serve, (ii) reasonable time devoted to activities in the non-profit and business communities consistent with Executive's duties, and (iii) such other activities as may be specifically approved by the Company. This restriction shall not, however, preclude Executive from owning less than one percent (1%) of the total outstanding shares of a publicly traded company, or employment or

service in any capacity with Affiliates of the Company. As used in this Agreement, "***Affiliates***" means an entity under common management or control with the Company.

5. **NO CONFLICT WITH EXISTING OBLIGATIONS**. Executive represents that Executive's performance of all the terms of this Agreement and as an executive of the Company do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

6. **TERMINATION OF EMPLOYMENT**. The Parties acknowledge that Executive's employment relationship with the Company is at-will. The provisions in this Section govern the amount of compensation, if any, to be provided to Executive upon termination of employment and do not alter this at-will status.

6.1 **Termination by the Company Without Cause**.

(a) The Company shall have the right to terminate Executive's employment with the Company pursuant to this Section 6.1 at any time without "Cause" (as defined in Section 6.2(b) below) by giving notice as described in Section 7.1 of this Agreement. A termination pursuant to Sections 6.3 and 6.5 below is not a termination without "Cause" for purposes of receiving the benefits described in this Section 6.1.

(b) If the Company terminates Executive's employment at any time without Cause and provided that such termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h) a "***Separation from Service***"), then Executive shall be entitled to receive the Accrued Obligations (defined below) and, subject to Executive's compliance with the obligations in Section 6.1(c) below, then Executive shall also be entitled to receive (collectively, the "***Severance Benefits***"):

(i) an amount equal to Executive's then current Base Salary for nine (9) months (the "***Severance Period***"), less all applicable withholdings and deductions, paid in equal installments beginning on the Company's first regularly scheduled payroll date following the Release Effective Date (as defined in Section 6.1(c) below), with the remaining installments occurring on the Company's regularly scheduled payroll dates thereafter;

(ii) an amount equal to the unpaid bonus (if any) that Executive would have earned pursuant to the Bonus Plan with respect to any Performance Period (as defined in the Bonus Plan) completed prior to the termination date but for the employment requirement set forth in Section 6.3 of the Bonus Plan; and

(iii) payment of the employer portion of the premiums required to continue Executive's group health care coverage under the applicable provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985 ("***COBRA***"), provided that Executive timely elects to continue coverage under COBRA, until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent

health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A), (B) or (C), the "***COBRA Payment Period***"). Notwithstanding the foregoing, if at any time the Company determines in its sole discretion that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code, or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings for the remainder of the COBRA Payment Period, regardless of whether Executive elects COBRA coverage (the "***Special Severance Payment***"). Executive may, but is not obligated to, use such Special Severance Payment toward the cost of COBRA premiums. If Executive becomes eligible for coverage under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Payment Period, Executive must immediately notify the Company of such event, and all payments and obligations under this clause will cease.

(c) Executive will be paid all of the Accrued Obligations on the Company's first payroll date after Executive's date of termination from employment or earlier if required by law. Executive shall receive the Severance Benefits pursuant to Section 6.1(b) of this Agreement if: (i) Executive signs and delivers to the Company an effective, general release of claims in favor of the Company and its affiliates and representatives, in a form acceptable to the Company (the "***Release***"), by the 60th day following the termination date or such earlier date as set forth in the Release, which cannot be revoked in whole or part (if applicable) by such date or such earlier date as set forth in the Release (the date that the Release can no longer be revoked is referred to as the "***Release Effective Date***"); (ii) if Executive holds any other positions with the Company, Executive resigns such position(s) to be effective no later than the date of Executive's termination date (or such other date as requested by the Board); (iii) Executive returns all Company property in proper order and condition, reasonable wear and tear excepted, (including, but not limited to, all books, documents, papers, materials and any other property or assets relating to the business or affairs of the Company which may be in Executive's possession or under his control but excluding copies of records related to Executive's compensation from the Company and any equity ownership in the Company); (iv) Executive complies with all post-termination obligations under this Agreement and the Confidential Information Agreement; and (v) Executive complies with the terms of the Release, including without limitation any non-disparagement and confidentiality provisions contained in the Release. To the extent that any Severance Benefits are deferred compensation under Section 409A of the Code, and are not otherwise exempt from the application of Section 409A, then, if the period during which Executive may consider and sign the Release spans two calendar years, the payment of Severance Benefits will not be made or begin until the later calendar year.

(d) For purposes of this Agreement, "***Accrued Obligations***" are (i) Executive's accrued but unpaid salary through the date of termination, (ii) any unreimbursed business expenses incurred by Executive payable in accordance with the Company's standard expense reimbursement policies, and (iii) benefits owed to Executive under any qualified retirement plan or health and welfare benefit plan in which Executive was a participant in accordance with applicable law and the provisions of such plan.

(e) The Severance Benefits provided to Executive pursuant to this Section 6.1 is in lieu of, and not in addition to, any benefits to which Executive may otherwise be entitled under any Company severance plan, policy or program.

(f) Any damages caused by the termination of Executive's employment without Cause would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.2 **Termination by the Company for Cause**.

(a) Subject to Section 6.2(c) below, the Company shall have the right to terminate Executive's employment with the Company at any time for Cause by giving notice as described in Section 7.1 of this Agreement.

(b) "***Cause***" for termination shall mean that the Company has determined in its sole discretion that Executive has engaged in any of the following: (i) any material breach of the terms of this Agreement by Executive, or the willful failure of Executive to diligently and properly perform Executive's material duties for the Company; (ii) Executive's misappropriation or unauthorized use of the Company's tangible or intangible property that causes or is likely to cause material harm to the Company or its reputation, or material breach of the Confidential Information Agreement or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (iii) any material failure to comply with the Company Policies or any other policies and/or directives of the Board; (iv) Executive's use of illegal drugs or any illegal substance, or Executive's use of alcohol in any manner that materially interferes with the performance of Executive's duties under this Agreement; (v) any (A) dishonest or illegal action (including, without limitation, embezzlement) by Executive, or (B) other action, whether or not dishonest or illegal, by Executive, in either case which is materially detrimental to the interest and well-being of the Company, including, without limitation, harm to its reputation; (vi) Executive's failure to fully disclose any material conflict of interest Executive may have with the Company in a transaction between the Company and any third party which is materially detrimental to the interest and well-being of the Company; (vii) any adverse action or omission by Executive which would be required to be disclosed pursuant to public securities laws or which would limit the ability of the Company or any entity affiliated with the Company to sell securities under any Federal or state law or which would disqualify the Company or any affiliated entity from any exemption otherwise available to it; or (viii) become prohibited by law or any order from any regulatory body or governmental body from being an employee or director of any company, firm or entity; *provided*, *however*, that prior to any termination of Executive for "Cause," if the grounds for such Cause are reasonably capable of cure by Executive, the Company shall provide Executive with written notice of the grounds for Cause and provide Executive with ten (10) business days in which to cure such Cause.

(c) In the event Executive's employment is terminated at any time for Cause, Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.3 **Resignation by Executive.**

(a) Executive may resign from Executive's employment with the Company at any time by giving notice as described in Section 7.1.

(b) In the event Executive resigns from Executive's employment with the Company for any reason (other than a resignation for Good Reason as described in Section 6.4 below), Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.4 **Resignation by Executive for Good Reason.**

(a) Provided Executive has not previously been notified of the Company's intention to terminate Executive's employment, Executive may resign from employment with the Company for Good Reason (as defined in Section 6.4(b) below).

(b) "***Good Reason***" for resignation shall mean the occurrence of any of the following without Executive's prior consent: (i) a material diminution in Executive's authority, duties or responsibilities; (ii) a material diminution in Executive's Base Salary; (iii) a requirement that Executive report to an employee other than the CEO; (iv) Executive's principal place of employment is relocated by more than fifty (50) miles from the Company's present location in Research Triangle Park, North Carolina; or (v) the Company materially breaches its obligations under this Agreement. In addition to any requirements set forth above, in order for any of the above events to constitute "Good Reason," Executive must (X) inform the Company of the existence of the event within sixty (60) days of the initial existence of the event, after which date the Company shall have no less than thirty (30) days to cure the event which otherwise would constitute "Good Reason" hereunder and (Y) Executive must terminate his employment with the Company for such "Good Reason" no later than ninety (90) days after the initial existence of the event which prompted Executive's termination. Any actions taken by the Company to accommodate a disability of Executive or pursuant to the Family and Medical Leave Act shall not be a Good Reason for purposes of this Agreement.

(c) In the event Executive resigns from Executive's employment for Good Reason, and provided that such termination constitutes a Separation from Service, then subject to Executive's compliance with the obligations in Section 6.1(c) above, Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1 and on the same terms and conditions set forth in Section 6.1(c) and Section 6.1(e) as if Executive had been terminated by the Company without Cause.

(d) Any damages caused by the termination of Executive's employment for Good Reason would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.5 **Termination by Virtue of Death or Disability of Executive.**

(a) In the event of Executive's death while employed pursuant to this Agreement, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

(b) Subject to applicable state and federal law, the Company shall at all times have the right, upon written notice to Executive, to terminate this Agreement based on Executive's Disability. Termination by the Company of Executive's employment based on "***Disability***" shall mean termination because a qualified medical doctor mutually acceptable to the Company and Executive or Executive's personal representative has certified in writing that: (A) Executive is unable, because of a medically determinable physical or mental disability, to perform the essential functions of Executive's job, with or without a reasonable accommodation, for more than one hundred and eighty (180) calendar days measured from the last full day of work; or (B) by reason of mental or physical disability, it is unlikely that Executive will be able, within one hundred and eighty (180) calendar days, to resume the essential functions of Executive's job, with or without a reasonable accommodation, and to otherwise discharge Executive's duties under this Agreement. This definition shall be interpreted and applied consistent with the Americans with Disabilities Act, the Family and Medical Leave Act, and other applicable law. In the event Executive's employment is terminated based on Executive's Disability, Executive will not receive Severance Benefits or any other severance compensation or benefit, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.6 **Change in Control Benefits.** In the event the Company (or any surviving or acquiring corporation) terminates Executive's employment without Cause or Executive resigns for Good Reason within twelve (12) months following the effective date of a Change in Control (as defined under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as may be amended from time to time by the Company (the "***Plan***")), then Executive shall be entitled to the Accrued Obligations and, provided that Executive complies with the obligations in Section 6.1(c) of this Agreement (including the requirement to provide an effective Release), Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1(b) and on the same conditions as if Executive had been terminated by the Company without Cause; *provided, however,* that (a) the Severance Period shall be increased to twelve (12) months; (b) the bonus set forth in Section 6.1(b)(ii) shall instead be payable at the Target Amount; and (c) in the event that Executive's outstanding equity as of the closing of the Change in Control is assumed or continued (in accordance with its terms) by the surviving entity in a Change in Control, then 100% of the unvested portion of such equity shall become vested.

6.7 **Cooperation With Company After Termination of Employment**. Following termination of Executive's employment for any reason and for a period of one (1) year thereafter, Executive agrees to cooperate (a) with the Company in (i) the defense of any legal matter involving any matter that arose during Executive's employment with the Company, and (ii) all matters relating to the winding up of Executive's pending work and the orderly transfer of any such pending work to such other employees as may be designated by the Company; and (b) with all government authorities on matters pertaining to any investigation, litigation or administrative

proceeding pertaining to the Company. The Company will reimburse Executive for any reasonable travel and out of pocket expenses incurred by Executive in providing such cooperation. The Company will also pay Executive a per diem amount equal to Executive's Base Salary as of the date of termination divided by two hundred and thirty (230) for each day or partial day that Executive devotes to fulfilling his obligation to cooperate under this Section 6.7, unless Executive is then receiving continued payment of his Base Salary under 6.1(b)(ii), above. Following termination of Executive's employment for any reason, and in the event of a failure by Executive (following reasonable efforts by the Company to secure his voluntary cooperation) to resign from any position as officer or director of the Company, with such resignation to be effective no later than the date of Executive's termination date (or such other date as requested by the Board), the Company is hereby irrevocably authorized to appoint its then-current Chief Executive Officer to act in Executive's name and on his behalf to execute any documents and to do all things reasonably necessary to effect such resignation. Further, Executive shall not, at any time after termination of Executive's employment for any reason, represent himself as being an agent or representative of the Company, unless expressly authorized in a written agreement executed by an authorized officer of the Company.

6.8 **Application of Section 409A**.

(a) It is intended that all of the severance payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively, "***Section 409A***") provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9), and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms.

(b) The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Executive under this Agreement. The Company shall not be liable to Executive for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A.

(c) No severance payments will be made under this Agreement unless Executive's termination of employment constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

(d) For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Executive's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

(e) If the Company determines that the severance benefits provided under this Agreement constitutes "deferred compensation" under Section 409A and if Executive is a "specified employee" of the Company, as such term is defined in Section 409A(a)(2)(B)(i) of the

Code at the time of Executive's Separation from Service, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Severance Benefits will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's Separation from Service, and (ii) the date of Executive's death (such earlier date, the "***Delayed Initial Payment Date***"), the Company will (1) pay to Executive a lump sum amount equal to the sum of the Severance Benefits that Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Severance Benefits had not been delayed pursuant to this Section 6.8, and (2) commence paying the balance of the Severance Benefits in accordance with the applicable payment schedule set forth in Section 6.1. No interest shall be due on any amounts deferred pursuant to this Section 6.8.

6.9 **Parachute Payments**.

(a) Notwithstanding any other provisions of this Agreement to the contrary, in the event that it shall be determined that any payment or distribution to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "***Payment***") would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, the Company shall reduce the aggregate present value of the Payments under this Agreement to the Reduced Amount (as defined below) if, and only if, reducing the Payments under this Agreement will provide Executive with a greater net after-tax amount than would be the case if no such reduction was made, taking into account the applicable federal, state, local and foreign income, employment and other taxes, including the excise tax imposed by Section 4999 of the Code. If a reduction in the Payments is necessary, such reduction shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. Within any such category of payments and benefits (that is, clauses (1), (2), (3) or (4) of this Section 6.9(a)), a reduction shall occur first with respect to amounts that are not "deferred compensation" within the meaning of Section 409A of the Code and then with respect to amounts that are. The "***Reduced Amount***" shall be an amount expressed in present value that maximizes the aggregate present value of Payments under this Agreement without causing any Payment to be nondeductible by the Company because of Section 280G of the Code.

(b) All determinations to be made under this Section 6.9 shall be made at the Company's expense by a firm of certified public accountants of national standing selected by the Company (the "***Accounting Firm***") which may be the firm regularly auditing the financial statements of the Company. The Company and Executive shall furnish to the Accounting Firm such information and documents as the Accounting Firm may reasonably require in order to make a determination under this Section. To the extent requested by Executive, the Company shall cooperate with Executive in good faith in valuing, and the Accounting Firm shall value, services to be provided by Executive (including refraining from performing services pursuant to a covenant not to compete) before, on or after the date of the transaction which cause the application of Section 280G of the Code such that payments in respect of such services may be considered to be "reasonable compensation" within the meaning of the regulations under Section 280G of the Code. In making its determinations hereunder, the Accounting Firm shall apply reasonable, good faith interpretations regarding the applicability of Section 280G and Section

4999, along with any other applicable portions of the Code or other tax laws. The Accounting Firm shall make all determinations required to be made under this Section and shall provide detailed supporting calculations to the Company and Executive within 30 days after the Termination Date or such earlier time as is requested by the Company, and provide an opinion to Executive that he or she has substantial authority not to report any excise tax on his or her Federal income tax return with respect to any Payments. Any such determination by the Accounting Firm shall be binding upon the Company and Executive. Subject to Sections 6.1(c) and 6.9, within five business days thereafter, the Company shall pay to or distribute to or for the benefit of Executive such amounts as are then due to Executive under this Agreement.

(c) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Accounting Firm or the Company hereunder, it is possible that Payments, as the case may be, will have been made by the Company which should not have been made ("***Overpayment***") or that additional Payments, as the case may be, which will not have been made by the Company could have been made ("***Underpayment***"), in each case, consistent with the calculations required to be made hereunder. In the event that the Accounting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against Executive which the Accounting Firm believes has a high probability of success determines that an Overpayment has been made, promptly on notice and demand Executive shall repay to the Company any such Overpayment paid or distributed by the Company to or for the benefit of Executive together with interest at the applicable Federal rate provided for in Section 7872(f)(2)(A) of the Code; provided, however, that no such amount shall be payable by Executive to the Company if and to the extent such payment would not either reduce the amount on which Executive is subject to tax under Section 1 and Section 4999 of the Code or generate a refund of such taxes. In the event that the Accounting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2)(A) of the Code.

7. GENERAL PROVISIONS.

7.1 **Notices**. Any notices required hereunder to be in writing shall be deemed effectively given: (a) upon personal delivery to the Party to be notified, (b) when sent by electronic mail or confirmed facsimile if sent during normal business hours of the recipient, and if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at its primary office location and to Executive at Executive's address as listed on the Company payroll, or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other.

7.2 **Severability**. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed,

construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.3 **Survival.** Provisions of this Agreement which by their terms must survive the termination of this Agreement in order to effectuate the intent of the Parties will survive any such termination, whether by expiration of the term, termination of Executive's employment, or otherwise, for such period as may be appropriate under the circumstances.

7.4 **Waiver**. If either Party should waive any breach of any provisions of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 **Complete Agreement**. This Agreement constitutes the entire agreement between Executive and the Company with regard to the subject matter hereof. This Agreement is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter and supersedes any prior oral discussions or written communications and agreements, including the Prior Agreement. This Agreement is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in writing signed by Executive and an authorized officer of the Company, subject to the approval of the Board, its compensation committee or (if necessary) the stockholders of the Company. The Parties have entered into a separate Confidential Information Agreement and have entered or may enter into separate agreements related to equity. These separate agreements govern other aspects of the relationship between the Parties, have or may have provisions that survive termination of Executive's employment under this Agreement, may be amended or superseded by the Parties without regard to this Agreement and are enforceable according to their terms without regard to the enforcement provision of this Agreement.

7.6 **Headings**. The headings of the sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.7 **Successors and Assigns**. The Company shall assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any company or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said Company or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a Party, but may not otherwise assign this Agreement or its rights and obligations hereunder. Executive may not assign or transfer this Agreement or any rights or obligations hereunder, other than to Executive's estate upon death.

7.8 **Withholding**. All amounts payable hereunder shall be subject to applicable tax withholding.

7.9 **Choice of Law**. This Agreement in all respects shall be governed by and interpreted in accordance with the laws of the State of North Carolina, both procedural and substantive, without regard to conflicts of law, except to the extent that federal laws and regulations preempt otherwise applicable law.

7.10 **Mandatory Mediation.** Prior to and as a condition of either Party's filing suit in state or federal court, the Parties shall engage in a mediated settlement conference in accordance with the North Carolina Superior Court Rules Implementing Statewide Mediation. The Parties shall mediate in good faith until settlement is reached or an impasse is declared by the mediator.

7.11 **Jurisdiction.** Each Party hereby irrevocably submits to the exclusive jurisdiction of the United States District Court located in Wake County, North Carolina, or any state court located within such state, in respect of any claim relating to this Agreement or Executive's employment with the Company, and hereby waives, and agrees not to assert, as a defense in any action, suit or proceeding in which any such claim is made that said Party is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in such courts or that the venue thereof may not be appropriate or that this Agreement may not be enforced in or by such courts. Any appellate proceedings shall take place in the appropriate courts having appellate jurisdiction over the courts set forth in this Section.

7.12 **Counterparts**. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one Party, but all of which taken together will constitute one and the same Agreement. Facsimile signatures and signatures transmitted by PDF shall be equivalent to original signatures.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first written above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____
Name: Neal Fowler
Title: Chief Executive Officer

Executive:

_____
Robert Lippe

Exhibit A

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

THIS CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT (this "**Agreement**") is effective as of DATE (the "**Effective Date**") by and between NAME (hereinafter "**Employee**") and Liquidia Technologies, Inc. (the "**Company**").

STATEMENT OF PURPOSE

The Employee desires to be employed by the Company, and the Company is willing to employ Employee strictly subject to Employee's agreement to be bound by the terms of this Agreement.

IN CONSIDERATION of the Company's employment of the Employee and the compensation and other benefits that the Company may provide to Employee as an employee, the Employee, intending to be legally bound, agrees to the following:

1. For purposes of this Agreement, "**Proprietary Information**" is information (whether in written or other form or whether or not patentable or protectable by copyright, trade secret, trade dress, trademark, or the like) that: (i) has been created, invented, discovered, or developed by the Employee in connection with the Employee's employment by the Company; (ii) is non-public and has been disclosed, furnished, or communicated to the Employee in connection with the Employee's employment by the Company; or (iii) is non-public and the unauthorized disclosure of which could be detrimental to the interests of the Company. Proprietary Information includes, but is not limited to, all inventions, works of authorship, trade secrets, know how, proprietary or confidential information, including, but not limited to, research, product or business plans, products, services, projects, proposals, processes, formulas, ideas, data, compositions, technology, computer programs and related source code and object code, developments, designs, drawings, marketing information and plans, customer lists, budgets, projections, partners, cost analyses, acquisition candidates, relevant parts of analysis, reviews, compilations, studies or other records and documents, and other information owned by the Company, disclosed to the Employee, or to which the Employee has been provided access or gains access, either directly or indirectly, by any means. Proprietary Information does not include information that is or becomes generally available to the public other than as a result of a disclosure by the Employee or by any other person or entity that is under a confidentiality obligation to Company with respect to such information.

2. Nondisclosure of Proprietary Information.

2.1 The Employee acknowledges and agrees that Proprietary Information is the sole property of the Company or its designee and that the Employee shall have no right,

title, license, or interest in or to any Proprietary Information. During and after the Employee's employment by the Company, the Employee shall keep in the strictest confidence and trust all Proprietary Information and shall not directly or indirectly disclose, distribute, copy, supply, or use, in whole or in part, any Proprietary Information except as approved in advance in writing by the Company. Notwithstanding the foregoing, it is understood that, at all such times, the Employee is free (i) to use information which was known to the Employee prior to employment with the Company or which is generally known in the trade or industry through no breach of this Agreement or other act or omission by the Employee, (ii) to discuss the terms of the Employee's employment, wages and working conditions to the extent expressly protected by applicable law, (iii) to report possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, (iv) to respond to inquiries from, or otherwise cooperate with, any governmental or regulatory investigation, or (v) to testify truthfully as compelled by lawful process or subpoena related to such testimony after the Employee has provided advance written notice of said subpoena to the Company's Chief Executive Officer and reasonably cooperates with the Company in any process to oppose said subpoena.

2.2 The Employee shall not use or disclose to the Company, or assist in the disclosure to the Company of, proprietary or confidential information belonging to any third parties, including any prior employer(s).

2.3 The Employee acknowledges and agrees that the Company has received and in the future may receive from third parties, including, but not limited to, potential collaborating partners or customers of the Company, confidential or proprietary information ("**Third Party Information**") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of the Employee's employment with the Company and thereafter, the Employee will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel or the Company's designee who need to know such information in connection with their work for the Company or such third party) or use Third Party Information, except in connection with the Employee's work for the Company or such third party, unless expressly approved in advance in writing by the Company. The Employee further agrees to be bound by and subject to any confidentiality or nondisclosure agreements or clauses with respect to such Third Party Information between the Company and any such third party.

2.4 Pursuant to the Defend Trade Secrets Act of 2016, the Employee acknowledges that the Employee will not have criminal or civil liability under any federal or state trade secret law for the disclosure of a trade secret that (i) is made (a) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and (b) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if the Employee files a lawsuit for retaliation by the Company for reporting a suspected violation of law, the Employee may

disclose the trade secret to the Employee's attorney and may use the trade secret information in the court proceeding, if the Employee (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

3. Upon the earliest to occur of (i) termination of the Employee's employment by the Company for any reason, (ii) termination of the Employee's access to Proprietary Information, or (iii) the request of the Company, the Employee shall return to the Company (and will not keep in Employee's possession or control or deliver to anyone else) all materials belonging to the Company, whether kept at the Employee's business office, personal residence or otherwise, including, but not limited to, all materials containing or relating to any Proprietary Information in any written, tangible, electronic or other form that the Employee may have in Employee's possession or control, and any and all mobile telephones, personal digital assistants, pagers, computer and other electronic devices and credit cards. After returning the materials and equipment described in the preceding sentence to the Company, the Employee shall not retain any copies of any such materials.

4. Ownership of Proprietary Information.

4.1 All Proprietary Information and other information, which by its nature is proprietary to the Company, relating to the Company's business or the Company's anticipated business, or based on, derived from or relating to any Proprietary Information (collectively, Proprietary Information and "**Work Product**") shall be the sole property of the Company. The Employee agrees that all Proprietary Information and Work Product created, conceived, reduced to practice, made or otherwise developed by the Employee, solely or jointly, during and in any way related to the Employee's employment, shall be the exclusive property of the Company and/or its designees or assignees, and shall be deemed "works made for hire," as that term is defined in Section 101 of the U.S. Copyright Act of 1976, as amended.

4.2 If, for any reason, any Proprietary Information and Work Product does not qualify as works made for hire, the Employee shall assign and does hereby irrevocably, unconditionally, and without encumbrance of any kind assign to the Company, and forever waives and agrees never to assert, all right, title, and interest, including without limitation, all patent, trademark, copyright, trade secret, and other intellectual property (collectively, "**Intellectual Property**") rights, in and to such Proprietary Information and Work Product. The Employee shall assist the Company, or its designee, in every proper way to secure the Company's rights in the Proprietary Information and Work Product and any Intellectual Property rights relating thereto in any and all countries, including (i) the disclosure to the Company of all pertinent information and data with respect thereto, (ii) the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company or its designee the sole and exclusive right, title and interest in and to the Proprietary Information and Work Product, and (iii) the defense of any claim, demand, action, litigation, suit, or other proceeding,

including, but not limited to, interference, cancellation, opposition, or other proceedings in respect of such applications or any registrations or patents issuing therefrom. The Employee shall continue such assistance after the termination of the Employee's employment by the Company.

4.3 During the Employee's employment by the Company, the Employee shall report promptly to the Company all Proprietary Information and Work Product created, conceived, reduced to practice, or otherwise developed by the Employee, solely or jointly.

4.4 If the Company is unable because of the Employee's mental or physical incapacity or for any other reason to secure the Employee's signature to apply for or to secure protection of any Proprietary Information and Work Product, then the Employee hereby designates and appoints the Company and its duly authorized officers and agents as its agents and attorneys-in-fact to execute and file any certificates, applications or documents and to do all of their lawful acts necessary to perfect and protect the Company's rights in the Proprietary Information and Work Product. The Employee expressly acknowledges that the foregoing power of attorney is coupled with an interest and is therefore irrevocable and shall survive the Employee's death or incompetency and the termination of the Employee's employment or engagement by the Company.

4.5 The Employee hereby represents and warrants that the Employee has fully disclosed to the Company on Schedule A attached hereto any idea, invention, discovery or process relating to the Company's business which, prior to the Employee's employment with the Company, the Employee conceived, reduced to practice, or developed, individually or jointly, and is to be excluded from the scope of this Agreement.

4.6 Notwithstanding anything in this Agreement to the contrary, the obligation of the Employee to assign or offer to assign the Employee's rights in an invention to the Company shall not extend or apply to an invention that the undersigned developed (i) entirely on the Employee's own time; (ii) without using Company equipment, supplies, facilities, or other resources, Proprietary Information or trade secret information unless such invention (a) relates to the Company's business or actual or demonstrably anticipated research or development, or (b) results from any work performed by the Employee for the Company. The Employee shall bear the burden of proof in establishing that the Employee's invention qualifies for exclusion under this Section 4.6.

5. Covenant Not To Compete.

5.1 For purposes of Part 5 of this Agreement, including each of its subparts, the following terms shall have the following meanings:

a. "**Competing Business**" shall mean any corporation, partnership, person, or other entity that is researching, developing, manufacturing, marketing, distributing, or selling any product, service, or technology that is competitive with any part of the Company's Business.

b. The "**Company's Business**" shall mean the development, manufacture, marketing, distribution, or sale of, including research directed to, any product, service, or technology that the Company is developing, manufacturing, marketing, distributing, or selling or to which the Company directed research at any time during Employee's employment with the Company. As of the date of this Agreement, the Company's Business includes, but is not limited to, research directed to and the development, manufacture, marketing, distribution, and/or sale of: (i) isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold; (ii) size and/or shape controllable pharmaceutical or therapeutic particles molded using a polymer or low surface energy mold; (iii) film based products of or containing arrays of size and/or shape controlled structures molded from a low surface energy mold; (iv) isolated nano or micro size and/or shape controlled particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled particles fabricated from a mold; (v) nano or micro size and/or shape controllable particles molded using a polymer or low surface energy mold; or (vi) patterned drum fabrication and mold for manufacturing the products of (i)-(v) above. The Employee understands that during the Employee's employment with the Company, the Company's Business may expand or change, and the Employee agrees that any such expansions or changes shall expand or contract the definition of the Company's Business and the Employee's obligations under this Agreement accordingly.

c. "**Territory**" shall mean the following severable geographic areas: (i) the world, (ii) any country in which the Company or a Competing Business is engaged in business, (iii) any country in which the Company is engaged in business, (iv) the United States, Europe, and Asia, (v) the United States, (vi) any state, including the District of Columbia, in which the Company or a Competing Business is engaged in business, (vii) any state, including the District of Columbia, in which the Company is engaged in business, (viii) North Carolina, (ix) a one hundred mile radius of the Employee's principal place of employment or work for the Company, or (x) a one hundred mile radius of the Company's corporate headquarters.

5.2 It is recognized and understood by the Employee that, through the Employee's association with the Company, the Employee shall: (i) have access to trade secrets and confidential information of the Company, including, but not limited to, valuable information about its intellectual property, business operations and methods, and the persons with which it does business in various locations throughout the world, that is not generally known to or readily ascertainable by the Company's competitors, (ii) develop relationships with the Company's customers and others with which the Company does business, and these relationships are among the Company's most important assets, (iii) receive specialized knowledge of and specialized training in the Company's Business, and (iv) gain such knowledge of the Company's Business that, during the course of the Employee's employment with the Company and for a period of one year following the termination thereof, the Employee could not perform services for a Competing Business

without inevitably disclosing the Company's trade secrets and Proprietary Information to that Competing Business.

5.3 While employed by the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise) for any Competing Business, (ii) engage in any activities (or assist others to engage in any activities) that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing or prospective customers, suppliers, business partners, or contractors of the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (v) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company.

5.4 For a period of one year following the termination of the Employee's employment with the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise), within the Territory for any Competing Business, that are the same or substantially similar to any services that the Employee performed for the Company or that otherwise utilize skills, knowledge, and/or business contacts and/or relationships that the Employee developed while providing services to the Company, (ii) engage in any activities (or assist others to engage in any activities) within the Territory that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or any prospective customers to whom the Company has made a written proposal ("Prospective Customers"), suppliers, business partners, or contractors of the Company, during the last year of the Employee's employment with the Company, to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, (v) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or Prospective Customers, suppliers, business partners, or contractors of the Company with which the Employee worked or had business contact during the last year of the Employee's employment with the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (vi) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company. Where a Competing Business is a large enterprise with separately operated business units, the restrictions in Section 5.4(i) shall not apply to any such business unit that has no involvement in the research, development, manufacture, marketing, distribution, or sale of a product, service, or technology that is competitive with any part of the Company's Business; *provided, however*, that this sentence does not apply to any employees in a scientific role or whose role involves the research, development or maintenance of the Company's trade secrets. These obligations will continue for the specified period regardless of whether the termination of the Employee's

employment was voluntary or involuntary or with or without cause, and the specified period shall be tolled and shall not run during any time in which the Employee fails to abide by this obligations.

5.5 The Employee shall not at any time following the termination of the Employee's employment with the Company use the name or trading style of the Company in any country, or use in any country any name or trading style which is the same as or similar to any of the trade or service marks of the Company or any brand name or proposed brand name of any of the Company's products or proposed products, or represent himself or herself as carrying on or continuing or being connected with the Company or its business for any purpose whatsoever unless otherwise agreed by the Company in writing.

5.6 While employed by the Company, the Employee shall disclose to the audit committee of the Company the Employee's interest in respect of any contract or arrangement in which the Employee has any personal material interest, directly or indirectly, or any conflicts of interest (including the conflict of interest that may arise from the Employee's directorship(s) or executive position or personal investments in any corporation(s)) that may involve the Employee. Upon such disclosure, the Employee shall abstain from voting in respect of any such contract, arrangement, proposal, transaction, or matter in which the conflict of interest arises, unless and until the audit committee has determined that no such conflict of interest exists.

5.7 As an exception to the restrictions set forth in Parts 5.3 and 5.4 herein, the Employee may own passive investments in a Competing Businesses, (including, but not limited to, indirect investments through mutual funds), provided that the securities of the Competing Business are publicly traded and the Employee does not own or control more than two percent of the outstanding voting rights or equity of the Competing Business.

5.8 In the event that a court determines that the length of time, the geographic area, or the activities prohibited under this Agreement are too restrictive to be enforceable, the Court may reduce the scope of the restriction to the extent necessary to make the restriction enforceable.

5.9 The market for the Company's services and the Company's Business is highly specialized and highly competitive such that other companies and business entities compete with the Company in various locations throughout the world. The provisions set forth in this Agreement: (i) are reasonably necessary to protect the Company's legitimate business interests, (ii) are reasonable as to the time, territory, and scope of activities that are restricted, (iii) do not interfere with the Employee's ability to earn a comparable living or secure employment in the field of the Employee's choice, (iv) do not interfere and are not inconsistent with public policy or the public interest, and (v) are described with sufficient accuracy and definiteness to enable the Employee to understand the scope of the restrictions on the Employee.

5.10 Because of the unique nature of the Proprietary Information, the Employee understands and agrees that the Company will suffer irreparable harm in the event that the Employee fails to comply with any of the Employee's obligations under this Agreement and that monetary damages will be inadequate to compensate the Company for such breach. Accordingly, the Employee agrees that the Company will, in addition to any other remedies available to it at law or in equity, be entitled to injunctive relief to enforce the terms of this Agreement.

6. The Employee hereby authorizes the Company to provide a copy of this Agreement, including any exhibits hereto, to any and all of the Employee's future employers and to notify any and all such future employers that the Company intends to exercise its legal rights arising out of or in connection with this Agreement and/or any breach or any inducement of a breach hereof.

7. The Employee agrees that, during the term of the Employee's employment with the Company, the Employee will not: (i) engage in any other employment, occupation, consulting, or other business activity that conflicts with the Employee's obligations to the Company, or (ii) engage in any other activities that conflict with the Employee's obligations to the Company.

8. Debarment Certification

8.1 The Employee represents and promises that Employee:

(a) is not presently, and during the Employee's employment will not be, debarred or convicted for a crime for which Employee can be debarred under the Generic Drug Enforcement Act of 1992 (21USC335a)(the "**Act**"); and

(b) is not presently, and during the Employee's employment will not be, indicted or otherwise criminally or civilly charged by a government entity (Federal or State) with commission of the kinds of conduct for which Employee can be debarred under the Act; and

(c) will not employ or otherwise engage any individual who has been (i) debarred or (ii) convicted of a crime for which a person can be debarred under the Act, in any capacity in connection with the activities of developing or reporting data which may become part of an application for approval of a drug or biologic.

8.2 The Employee promises that, during the Employee's employment with the Company, the Employee will promptly notify the Company upon learning of or having a belief that the Employee cannot satisfy the obligations of Section 8.1 above.

9. The Employee agrees that this Agreement shall be enforced, construed and interpreted under the law of the state of North Carolina, without regard to the conflicts of laws principles thereof. The state and federal courts in North Carolina shall be the exclusive venues for the adjudication of all disputes arising out of this Agreement, and the Employee consents to the exercise of personal jurisdiction over the Employee in any such adjudication and hereby waives any and all objections and defenses to the exercise of such personal jurisdiction.

10. The Employee agrees that: (i) the Employee's employment relationship with the Company is "at-will," which means that either the Employee or the Company can terminate the relationship at any time for any reason or no reason, with or without notice, unless the Employee and the Company are parties to a contract that expressly provides a fixed term of employment, (ii) the Employee's employment relationship with the Company is contingent upon the Employee's execution of this Agreement, which is a material inducement to the Company to offer the employment relationship to the Employee and to provide Proprietary Information to the Employee, and (iii) this Agreement shall survive any termination for any reason whatsoever of the Employee's employment relationship with the Company.

11. The Employee agrees that the Company's failure to insist upon strict compliance with any provision of this Agreement shall not be deemed a waiver of such provision or of any other provision in the Agreement. The provisions of this Agreement shall be enforceable, notwithstanding the existence of any breach of this Agreement by the Company or of any claim by the Employee

against the Company, whether predicated on this Agreement or otherwise.

12. This Agreement contains the entire understanding between the parties with respect to the subject matter hereof and supersedes all prior or contemporary agreements or understandings, whether written or oral, with respect thereto, provided, however, prior to the execution of this Agreement, if Company and the Employee were parties to any agreement regarding the subject matter hereof, that agreement will be superseded by this Agreement prospectively only. This Agreement may not be modified or amended except by an agreement in writing signed by both parties.

13. The Employee agrees that this Agreement is assignable by the Company at the Company's discretion and the Employee authorizes the Company's successors and assigns to enforce this Agreement for their respective benefits.

14. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

15. The Employee agrees that a breach of any provision(s) of this Agreement will toll the running of the limitation period with respect to such provision(s) for as long as such breach occurs.

16. The Employee agrees and acknowledges that the Company's agreement to employ the Employee, in and of itself, is sufficient and adequate consideration for the Employee's promises and obligations hereunder, and that the compensation and other benefits that the Company provides the Employee during the course of the Employee's employment are, independently and collectively, sufficient and adequate consideration for the Employee's promises and obligations hereunder.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Employee has executed this Agreement to be effective as of the date set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____(s)
Name:
Title:

_____(s)
NAME

SCHEDULE A

The following items are inventions, ideas, computer software programs or other equipment or technology not covered by Section 4 of this Agreement, which the undersigned conceived of or developed, wholly or in part, prior to the Employee's employment or engagement with the Company and shall be excluded from the scope of this Agreement.

If the undersigned has no such items to disclose, write "NONE" on this line: .

Description of Items: (if applicable)

Title on Document	Date on Document	Name of Witness on Document

LIQUIDIA TECHNOLOGIES, INC.

By: _____ NAME _____

Dated: _____ Dated: _____

Exhibit 10.26

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This **AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT** (the "***Agreement***") is entered into effective January 22, 2018 (the "***Effective Date***"), by and between Tim Albury (the "***Executive***") and Liquidia Technologies, Inc., a Delaware corporation (the "***Company***"). Each of the Company and Executive is a "***Party***" and, collectively, they are the "***Parties***."

The Company and Executive entered into an Executive Employment Agreement effective April 1, 2017 (the "***Prior Agreement***"); and

The Company and Executive have agreed to amend and restate the Prior Agreement as set forth in this Agreement to reflect certain adjustments to Executive's employment relationship with the Company.

Accordingly, in consideration of the mutual promises and covenants contained herein, the Parties agree to the following:

1. EMPLOYMENT BY THE COMPANY.

1.1 **At-Will Employment**. Executive shall be employed by the Company on an "at will" basis, meaning either the Company or Executive may terminate Executive's employment at any time, with or without cause or advance notice. Any contrary representations that may have been made to Executive shall be superseded by this Agreement. This Agreement shall constitute the full and complete agreement between Executive and the Company on the "at will" nature of Executive's employment with the Company, which may be changed only in an express written agreement signed by Executive and a duly authorized officer of the Company. Executive's rights to any compensation following a termination shall be only as set forth in Section 6.

1.2 **Position**. Subject to the terms set forth herein, the Company agrees to employ Executive in the position of Senior Vice President, Chief Accounting Officer, and Executive hereby accepts such employment. Executive will report to the Chief Financial Officer ("***CFO***") and/or such executive designated by the CFO. Executive agrees that, by accepting this Agreement, Executive consents to the changes to Executive's position, duties, and responsibilities as set forth in this Agreement and agrees that such changes alone will not result in any right of Executive to terminate employment for Good Reason, as defined herein or in any other context, and receive the Severance Benefits described herein or any other similar benefits under any contractual arrangement, including the Prior Agreement.

1.3 **Duties**. Executive shall faithfully perform all duties of the Company related to the position or positions held by the Executive, including but not limited to all duties set forth in this Agreement and/or in the Bylaws of the Company related to the position or positions held by the Executive and all additional duties that are reasonably prescribed from time to time by the CFO or other designated officers of the Company. Executive shall devote the Executive's full business time and attention to the performance of the Executive's duties and responsibilities on behalf of the Company and in furtherance of its best interests. Executive shall perform Executive's duties under this Agreement principally out of the Company's corporate

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headquarters. In addition, Executive shall make such business trips at the Company's expense to such places as may be necessary or advisable for the efficient operations of the Company.

1.4 **Company Policies**. The Executive shall comply with all Company policies, standards, rules and regulations (a "***Company Policy***" or collectively, the "***Company Policies***") and all applicable government laws, rules and regulations that are now or hereafter in effect. The Executive acknowledges receipt of copies of all written Company Policies that are in effect as of the date of this Agreement. Notwithstanding the foregoing, in the event that the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement shall control.

2. COMPENSATION.

2.1 **Salary**. Executive shall receive a monthly salary of $29,333.33, which equates to $352,000.00 on an annualized basis, payable subject to standard federal and state payroll withholding requirements in accordance with the Company's standard payroll practices ("***Base Salary***"). Executive's Base Salary may be increased from time to time by the Board of Directors of the Company (the "***Board***"). Notwithstanding anything to the contrary, the Base Salary may be reduced if the Board determines such reduction is necessary and justified by the financial condition of the Company and implements an equal percentage reduction in the base salaries of all of the Company's executive officers, but in no event will such reduction be greater than ten percent (10%) of the Base Salary. A reduction in Executive's Base Salary in accordance with the immediately preceding sentence shall not constitute a material diminution in Base Salary as described in Section 6.4(b) of this Agreement.

2.2 **Bonus**. During the period Executive is employed with the Company, Executive shall be eligible to earn for Executive's services to be rendered under this Agreement a discretionary annual cash bonus of up to 25% of Base Salary ("***Target Amount***"), subject to review and adjustment by the Company in its sole discretion, payable subject to standard federal and state payroll withholding requirements. Whether or not Executive earns any bonus will be dependent upon (a) Executive's continuous performance of services to the Company through the date any bonus is paid; and (b) the actual achievement by Executive and the Company of the applicable performance targets and goals set by the Board in advance of, or within the first quarter of, each calendar year. The annual period over which performance is measured for purposes of this bonus is January 1 through December 31. The Board will determine in its reasonable discretion the extent to which Executive and the Company have achieved the performance goals upon which the bonus is based and the amount of the bonus, which could be below the Target Amount (and may be zero). Any bonus shall be subject to the terms of any applicable incentive compensation plan adopted by the Company. Any bonus, if earned, will be paid to Executive within the time period set forth in the incentive compensation plan, or if no such time period was established, within two and one-half months following the end of the year during which the bonus is earned.

2.3 **Benefits**. Executive will be eligible to participate on the same basis as similarly situated employees in the Company's benefit plans in effect from time to time during Executive's employment. All matters of eligibility for coverage or benefits under any benefit

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plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to change, alter, or terminate any benefit plan in its sole discretion.

2.4 **Expense Reimbursement**. The Company shall reimburse Executive for all customary and appropriate business-related expenses actually incurred and documented in accordance with Company Policy, as in effect from time to time. For the avoidance of doubt, to the extent that any reimbursements payable to Executive are subject to the provisions of Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"): (a) any such reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, (b) the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and (c) the right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

3. PROPRIETARY INFORMATION, INVENTIONS, NON-COMPETITION AND NON-SOLICITATION OBLIGATIONS. The parties have entered into a Confidentiality, Inventions and Non-Competition (the "***Confidential Information Agreement***"), which may be amended by the parties from time to time without regard to this Agreement. The Confidential Information Agreement contains provisions that are intended by the Parties to survive and do survive termination of this Agreement.

4. OUTSIDE ACTIVITIES DURING EMPLOYMENT. Except with the prior written consent of the Company, which shall not be unreasonably withheld, Executive will not, while employed by the Company, undertake or engage in any other employment, occupation or business enterprise that would interfere with Executive's responsibilities and the performance of Executive's duties hereunder, except for (i) reasonable time devoted to volunteer services for or on behalf of such religious, educational, non-profit and/or other charitable organization as Executive may wish to serve, (ii) reasonable time devoted to activities in the non-profit and business communities consistent with Executive's duties, (iii) such other activities as may be specifically approved by the Company. This restriction shall not, however, preclude Executive from owning less than one percent (1%) of the total outstanding shares of a publicly traded company, or employment or service in any capacity with Affiliates of the Company. As used in this Agreement, "***Affiliates***" means an entity under common management or control with the Company.

5. NO CONFLICT WITH EXISTING OBLIGATIONS. Executive represents that Executive's performance of all the terms of this Agreement and as an executive of the Company do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

6. TERMINATION OF EMPLOYMENT. The Parties acknowledge that Executive's employment relationship with the Company is at-will. The provisions in this Section govern the amount of compensation, if any, to be provided to Executive upon termination of employment and do not alter this at-will status.

6.1 **Termination by the Company Without Cause**.

(a) The Company shall have the right to terminate Executive's employment with the Company pursuant to this Section 6.1 at any time without "Cause" (as defined in Section 6.2(b) below) by giving notice as described in Section 7.1 of this Agreement. A termination pursuant to Sections 6.3 and 6.5 below is not a termination without "Cause" for purposes of receiving the benefits described in this Section 6.1.

(b) If the Company terminates Executive's employment at any time without Cause and provided that such termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h) a "***Separation from Service***"), then Executive shall be entitled to receive the Accrued Obligations (defined below) and, subject to Executive's compliance with the obligations in Section 6.1(c) below, then Executive shall also be entitled to receive (collectively, the "***Severance Benefits***"):

(i) an amount equal to Executive's then current Base Salary for six (6) months (the "***Severance Period***"), less all applicable withholdings and deductions, paid in equal installments beginning on the Company's first regularly scheduled payroll date following the Release Effective Date (as defined in Section 6.1(c) below), with the remaining installments occurring on the Company's regularly scheduled payroll dates thereafter; and

(ii) payment of the employer portion of the premiums required to continue Executive's group health care coverage under the applicable provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985 ("***COBRA***"), provided that Executive timely elects to continue overage under COBRA, until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A), (B) or (C), the "***COBRA Payment Period***"). Notwithstanding the foregoing, if at any time the Company determines in its sole discretion that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings for the remainder of the COBRA Payment Period, regardless of whether Executive elects COBRA coverage (the "***Special Severance Payment***"). Executive may, but is not obligated to, use such Special Severance Payment toward the cost of COBRA premiums. If Executive becomes eligible for coverage under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Payment Period, Executive must immediately notify the Company of such event, and all payments and obligations under this clause will cease.

(c) Executive will be paid all of the Accrued Obligations on the Company's first payroll date after Executive's date of termination from employment or earlier if required by law. Executive shall receive the Severance Benefits pursuant to Section 6.1(b) of this Agreement if: (i) Executive signs and delivers to the Company an effective, general release of claims in favor of the Company and its affiliates and representatives, in a form acceptable to the Company

(the "***Release***"), by the 60th day following the termination date or such earlier date as set forth in the Release, which cannot be revoked in whole or part (if applicable) by such date or such earlier date as set forth in the Release (the date that the Release can no longer be revoked is referred to as the "***Release Effective Date***"); (ii) if Executive holds any other positions with the Company, Executive resigns such position(s) to be effective no later than the date of Executive's termination date (or such other date as requested by the Board); (iii) Executive returns all Company property; (iv) Executive complies with all post-termination obligations under this Agreement and the Confidential Information Agreement; and (v) Executive complies with the terms of the Release, including without limitation any non-disparagement and confidentiality provisions contained in the Release. To the extent that any Severance Benefits are deferred compensation under Section 409A of the Code, and are not otherwise exempt from the application of Section 409A, then, if the period during which Executive may consider and sign the Release spans two calendar years, the payment of Severance Benefits will not be made or begin until the later calendar year.

(d) For purposes of this Agreement, "***Accrued Obligations***" are (i) Executive's accrued but unpaid salary through the date of termination, (ii) any unreimbursed business expenses incurred by Executive payable in accordance with the Company's standard expense reimbursement policies, and (iii) benefits owed to Executive under any qualified retirement plan or health and welfare benefit plan in which Executive was a participant in accordance with applicable law and the provisions of such plan.

(e) The Severance Benefits provided to Executive pursuant to this Section 6.1 is in lieu of, and not in addition to, any benefits to which Executive may otherwise be entitled under any Company severance plan, policy or program.

(f) Any damages caused by the termination of Executive's employment without Cause would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.2 **Termination by the Company for Cause**.

(a) Subject to Section 6.2(c) below, the Company shall have the right to terminate Executive's employment with the Company at any time for Cause by giving notice as described in Section 7.1 of this Agreement.

(b) "***Cause***" for termination shall mean that the Company has determined in its sole discretion that the Executive has engaged in any of the following: (i) any material breach of the terms of this Agreement by Executive, or the willful failure of Executive to diligently and properly perform Executive's material duties for the Company; (ii) Executive's misappropriation or unauthorized use of the Company's tangible or intangible property that causes or is likely to cause material harm to the Company or its reputation, or material breach of the Confidential Information Agreement or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (iii) any material failure to comply with the Company Policies or any other policies and/or directives of the Board; (iv) Executive's use of illegal drugs or any illegal substance, or Executive's use of alcohol in any manner that materially

interferes with the performance of the Executive's duties under this Agreement; (v) any dishonest or illegal action (including, without limitation, embezzlement) or any other action, whether or not dishonest or illegal, by Executive which is materially detrimental to the interest and well-being of the Company, including, without limitation, harm to its reputation; (vi) Executive's failure to fully disclose any material conflict of interest the Executive may have with the Company in a transaction between the Company and any third party which is materially detrimental to the interest and well-being of the Company; (vii) any adverse action or omission by Executive which would be required to be disclosed pursuant to public securities laws or which would limit the ability of the Company or any entity affiliated with the Company to sell securities under any Federal or state law or which would disqualify the Company or any affiliated entity from any exemption otherwise available to it; or (viii) Executive's violation of the Company's Policies prohibiting unlawful harassment, discrimination, retaliation or workplace violence; *provided, however*, that prior to any termination of Executive for "Cause," if the grounds for such Cause are reasonably capable of cure by Executive, the Company shall provide Executive with written notice of the grounds for Cause and provide Executive with ten (10) business days in which to cure such Cause.

(c) In the event Executive's employment is terminated at any time for Cause, Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.3 **Resignation by Executive.**

(a) Executive may resign from Executive's employment with the Company at any time by giving notice as described in Section 7.1.

(b) In the event Executive resigns from Executive's employment with the Company for any reason (other than a resignation for Good Reason as described in Section 6.4 below), Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.4 **Resignation by Executive for Good Reason.**

(a) Provided Executive has not previously been notified of the Company's intention to terminate Executive's employment, Executive may resign from employment with the Company for Good Reason (as defined in Section 6.4(b) below).

(b) "***Good Reason***" for resignation shall mean the occurrence of any of the following without Executive's prior consent: (i) a material diminution in Executive's authority, duties or responsibilities; (ii) a material diminution in Executive's Base Salary; (iii) a requirement that Executive report to an employee other than the CFO; (iv) the Company materially breaches its obligations under this Agreement; or (v) Executive's principal place of employment is relocated by more than fifty (50) miles from the Company's present location in Research Triangle Park, North Carolina. In addition to any requirements set forth above, in order for any of the above events to constitute "Good Reason," Executive must (X) inform the

Company of the existence of the event within ninety (90) days of the initial existence of the event, after which date the Company shall have no less than thirty (30) days to cure the event which otherwise would constitute "Good Reason" hereunder and (Y) Executive must terminate his employment with the Company for such "Good Reason" no later than ninety (90) days after the initial existence of the event which prompted the Executive's termination. Any actions taken by the Company to accommodate a disability of Executive or pursuant to the Family and Medical Leave Act shall not be a Good Reason for purposes of this Agreement.

(c) In the event Executive resigns from Executive's employment for Good Reason, and provided that such termination constitutes a Separation from Service, then subject to Executive's compliance with the obligations in Section 6.1(c) above, Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1 and on the same terms and conditions set forth in Section 6.1(c) and Section 6.1(e) as if Executive had been terminated by the Company without Cause.

(d) Any damages caused by the termination of Executive's employment for Good Reason would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.5 **Termination by Virtue of Death, Disability of Executive, or Discontinuation of Business.**

(a) In the event of Executive's death while employed pursuant to this Agreement, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

(b) Subject to applicable state and federal law, the Company shall at all times have the right, upon written notice to Executive, to terminate this Agreement based on Executive's Disability. Termination by the Company of Executive's employment based on "***Disability***" shall mean termination because a qualified medical doctor mutually acceptable to the Company and Executive or Executive's personal representative has certified in writing that: (A) Executive is unable, because of a medically determinable physical or mental disability, to perform the essential functions of Executive's job, with or without a reasonable accommodation, for more than one hundred and eighty (180) calendar days measured from the last full day of work; or (B) by reason of mental or physical disability, it is unlikely that Executive will be able, within one hundred and eighty (180) calendar days, to resume the essential functions of Executive's job, with or without a reasonable accommodation, and to otherwise discharge the Executive's duties under this Agreement. This definition shall be interpreted and applied consistent with the Americans with Disabilities Act, the Family and Medical Leave Act, and other applicable law. In the event Executive's employment is terminated based on Executive's Disability, Executive will not receive Severance Benefits or any other severance compensation or benefit, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

(c) In the event the Company's business is discontinued because rendered impracticable by substantial financial losses, lack of funding, legal decisions, administrative rulings, declaration of war, dissolution, national or local economic depression or crisis or any reasons beyond the control of the Company, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive or his legal representatives all Accrued Obligations.

6.6 **Cooperation With Company After Termination of Employment**. Following termination of Executive's employment for any reason and for a period of two years thereafter, Executive agrees to cooperate (a) with the Company in (i) the defense of any legal matter involving any matter that arose during Executive's employment with the Company, and (ii) all matters relating to the winding up of Executive's pending work and the orderly transfer of any such pending work to such other employees as may be designated by the Company; and (b) with all government authorities on matters pertaining to any investigation, litigation or administrative proceeding pertaining to the Company. The Company will reimburse Executive for any reasonable travel and out of pocket expenses incurred by Executive in providing such cooperation. The Company will also pay Executive a per diem of $937 or each day or partial day that Executive devotes to fulfilling his obligation to cooperate under this Section 6.6, unless Executive is then receiving continued payment of his Base Salary under 6.1(b)(i), above.

6.7 **Application of Section 409A**.

(a) It is intended that all of the severance payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively, "***Section 409A***") provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9), and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms.

(b) The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Executive under this Agreement. The Company shall not be liable to Executive for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A.

(c) No severance payments will be made under this Agreement unless Executive's termination of employment constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

(d) For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Executive's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

(e) If the Company determines that the severance benefits provided under this Agreement constitutes "deferred compensation" under Section 409A and if Executive is a "specified employee" of the Company, as such term is defined in Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation from Service, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Severance Benefits will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's Separation from Service, and (ii) the date of Executive's death (such earlier date, the "***Delayed Initial Payment Date***"), the Company will (1) pay to Executive a lump sum amount equal to the sum of the Severance Benefits that Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Severance Benefits had not been delayed pursuant to this Section 6.7, and (2) commence paying the balance of the Severance in accordance with the applicable payment schedule set forth in Section 6.1. No interest shall be due on any amounts deferred pursuant to this Section 6.7.

7. GENERAL PROVISIONS.

7.1 **Notices**. Any notices required hereunder to be in writing shall be deemed effectively given: (a) upon personal delivery to the Party to be notified, (b) when sent by electronic mail or confirmed facsimile if sent during normal business hours of the recipient, and if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at its primary office location and to Executive at Executive's address as listed on the Company payroll, or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other.

7.2 **Severability**. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.3 **Survival.** Provisions of this Agreement which by their terms must survive the termination of this Agreement in order to effectuate the intent of the Parties will survive any such termination, whether by expiration of the term, termination of Executive's employment, or otherwise, for such period as may be appropriate under the circumstances.

7.4 **Waiver**. If either Party should waive any breach of any provisions of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 **Complete Agreement**. This Agreement constitutes the entire agreement between Executive and the Company with regard to the subject matter hereof. This Agreement is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter

and supersedes any prior oral discussions or written communications and agreements, including the Prior Agreement. This Agreement is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in writing signed by Executive and an authorized officer of the Company. The Parties have entered into a separate Confidential Information Agreement and have entered or may enter into separate agreements related to equity. These separate agreements govern other aspects of the relationship between the Parties, have or may have provisions that survive termination of Executive's employment under this Agreement, may be amended or superseded by the Parties without regard to this Agreement and are enforceable according to their terms without regard to the enforcement provision of this Agreement.

7.6 **Headings**. The headings of the sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.7 **Successors and Assigns**. The Company shall assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any company or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said Company or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a Party, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder, other than to Executive's estate upon death.

7.8 **Withholding**. All amounts payable hereunder shall be subject to applicable tax withholding.

7.9 **Choice of Law**. This Agreement in all respects shall be governed by and interpreted in accordance with the laws of the State of North Carolina, both procedural and substantive, without regard to conflicts of law, except to the extent that federal laws and regulations preempt otherwise applicable law.

7.10 **Mandatory Mediation.** Prior to and as a condition of either Party's filing suit in state or federal court, the Parties shall engage in a mediated settlement conference in accordance with the North Carolina Superior Court Rules Implementing Statewide Mediation. The Parties shall mediate in good faith until settlement is reached or an impasse is declared by the mediator.

7.11 **Jurisdiction.** Each Party hereby irrevocably submits to the exclusive jurisdiction of the United States District Court located in Wake County, North Carolina, or any state court located within such state, in respect of any claim relating to this Agreement or Executive's employment with the Company, and hereby waives, and agrees not to assert, as a defense in any action, suit or proceeding in which any such claim is made that said Party is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in such courts or that the venue thereof may not be appropriate or that this Agreement may not be enforced in or by such courts. Any appellate proceedings shall take place in the appropriate courts having appellate jurisdiction over the courts set forth in this Section.

7.12 **Counterparts**. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one Party, but all of which taken together will constitute one and the same Agreement. Facsimile signatures and signatures transmitted by PDF shall be equivalent to original signatures.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first written above.

LIQUIDIA TECHNOLOGIES, INC.

By: /s/ Kevin K. Gordon
Name: Kevin K. Gordon
Title: President and CFO

Executive:

/s/ Tim Albury
Tim Albury

Exhibit A

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

THIS CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT (this "**Agreement**") is effective as of DATE (the "**Effective Date**") by and between NAME (hereinafter "**Employee**") and Liquidia Technologies, Inc. (the "**Company**").

STATEMENT OF PURPOSE

The Employee desires to be employed by the Company, and the Company is willing to employ Employee strictly subject to Employee's agreement to be bound by the terms of this Agreement.

IN CONSIDERATION of the Company's employment of the Employee and the compensation and other benefits that the Company may provide to Employee as an employee, the Employee, intending to be legally bound, agrees to the following:

1. For purposes of this Agreement, "**Proprietary Information**" is information (whether in written or other form or whether or not patentable or protectable by copyright, trade secret, trade dress, trademark, or the like) that: (i) has been created, invented, discovered, or developed by the Employee in connection with the Employee's employment by the Company; (ii) is non-public and has been disclosed, furnished, or communicated to the Employee in connection with the Employee's employment by the Company; or (iii) is non-public and the unauthorized disclosure of which could be detrimental to the interests of the Company. Proprietary Information includes, but is not limited to, all inventions, works of authorship, trade secrets, know how, proprietary or confidential information, including, but not limited to, research, product or business plans, products, services, projects, proposals, processes, formulas, ideas, data, compositions, technology, computer programs and related source code and object code, developments, designs, drawings, marketing information and plans, customer lists, budgets, projections, partners, cost analyses, acquisition candidates, relevant parts of analysis, reviews, compilations, studies or other records and documents, and other information owned by the Company, disclosed to the Employee, or to which the Employee has been provided access or gains access, either directly or indirectly, by any means. Proprietary Information does not include information that is or becomes generally available to the public other than as a result of a disclosure by the Employee or by any other person or entity that is under a confidentiality obligation to Company with respect to such information.

2. Nondisclosure of Proprietary Information.

2.1 The Employee acknowledges and agrees that Proprietary Information is the sole property of the Company or its designee and that the Employee shall have no right,

title, license, or interest in or to any Proprietary Information. During and after the Employee's employment by the Company, the Employee shall keep in the strictest confidence and trust all Proprietary Information and shall not directly or indirectly disclose, distribute, copy, supply, or use, in whole or in part, any Proprietary Information except as approved in advance in writing by the Company. Notwithstanding the foregoing, it is understood that, at all such times, the Employee is free (i) to use information which was known to the Employee prior to employment with the Company or which is generally known in the trade or industry through no breach of this Agreement or other act or omission by the Employee, (ii) to discuss the terms of the Employee's employment, wages and working conditions to the extent expressly protected by applicable law, (iii) to report possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, (iv) to respond to inquiries from, or otherwise cooperate with, any governmental or regulatory investigation, or (v) to testify truthfully as compelled by lawful process or subpoena related to such testimony after the Employee has provided advance written notice of said subpoena to the Company's Chief Executive Officer and reasonably cooperates with the Company in any process to oppose said subpoena.

2.2 The Employee shall not use or disclose to the Company, or assist in the disclosure to the Company of, proprietary or confidential information belonging to any third parties, including any prior employer(s).

2.3 The Employee acknowledges and agrees that the Company has received and in the future may receive from third parties, including, but not limited to, potential collaborating partners or customers of the Company, confidential or proprietary information ("**Third Party Information**") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of the Employee's employment with the Company and thereafter, the Employee will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel or the Company's designee who need to know such information in connection with their work for the Company or such third party) or use Third Party Information, except in connection with the Employee's work for the Company or such third party, unless expressly approved in advance in writing by the Company. The Employee further agrees to be bound by and subject to any confidentiality or nondisclosure agreements or clauses with respect to such Third Party Information between the Company and any such third party.

2.4 Pursuant to the Defend Trade Secrets Act of 2016, the Employee acknowledges that the Employee will not have criminal or civil liability under any federal or state trade secret law for the disclosure of a trade secret that (i) is made (a) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and (b) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if the Employee files a lawsuit for retaliation by the Company for reporting a suspected violation of law, the Employee may

disclose the trade secret to the Employee's attorney and may use the trade secret information in the court proceeding, if the Employee (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

3. Upon the earliest to occur of (i) termination of the Employee's employment by the Company for any reason, (ii) termination of the Employee's access to Proprietary Information, or (iii) the request of the Company, the Employee shall return to the Company (and will not keep in Employee's possession or control or deliver to anyone else) all materials belonging to the Company, whether kept at the Employee's business office, personal residence or otherwise, including, but not limited to, all materials containing or relating to any Proprietary Information in any written, tangible, electronic or other form that the Employee may have in Employee's possession or control, and any and all mobile telephones, personal digital assistants, pagers, computer and other electronic devices and credit cards. After returning the materials and equipment described in the preceding sentence to the Company, the Employee shall not retain any copies of any such materials.

4. Ownership of Proprietary Information.

4.1 All Proprietary Information and other information, which by its nature is proprietary to the Company, relating to the Company's business or the Company's anticipated business, or based on, derived from or relating to any Proprietary Information (collectively, Proprietary Information and "**Work Product**") shall be the sole property of the Company. The Employee agrees that all Proprietary Information and Work Product created, conceived, reduced to practice, made or otherwise developed by the Employee, solely or jointly, during and in any way related to the Employee's employment, shall be the exclusive property of the Company and/or its designees or assignees, and shall be deemed "works made for hire," as that term is defined in Section 101 of the U.S. Copyright Act of 1976, as amended.

4.2 If, for any reason, any Proprietary Information and Work Product does not qualify as works made for hire, the Employee shall assign and does hereby irrevocably, unconditionally, and without encumbrance of any kind assign to the Company, and forever waives and agrees never to assert, all right, title, and interest, including without limitation, all patent, trademark, copyright, trade secret, and other intellectual property (collectively, "**Intellectual Property**") rights, in and to such Proprietary Information and Work Product. The Employee shall assist the Company, or its designee, in every proper way to secure the Company's rights in the Proprietary Information and Work Product and any Intellectual Property rights relating thereto in any and all countries, including (i) the disclosure to the Company of all pertinent information and data with respect thereto, (ii) the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company or its designee the sole and exclusive right, title and interest in and to the Proprietary Information and Work Product, and (iii) the defense of any claim, demand, action, litigation, suit, or other proceeding,

including, but not limited to, interference, cancellation, opposition, or other proceedings in respect of such applications or any registrations or patents issuing therefrom. The Employee shall continue such assistance after the termination of the Employee's employment by the Company.

4.3 During the Employee's employment by the Company, the Employee shall report promptly to the Company all Proprietary Information and Work Product created, conceived, reduced to practice, or otherwise developed by the Employee, solely or jointly.

4.4 If the Company is unable because of the Employee's mental or physical incapacity or for any other reason to secure the Employee's signature to apply for or to secure protection of any Proprietary Information and Work Product, then the Employee hereby designates and appoints the Company and its duly authorized officers and agents as its agents and attorneys-in-fact to execute and file any certificates, applications or documents and to do all of their lawful acts necessary to perfect and protect the Company's rights in the Proprietary Information and Work Product. The Employee expressly acknowledges that the foregoing power of attorney is coupled with an interest and is therefore irrevocable and shall survive the Employee's death or incompetency and the termination of the Employee's employment or engagement by the Company.

4.5 The Employee hereby represents and warrants that the Employee has fully disclosed to the Company on Schedule A attached hereto any idea, invention, discovery or process relating to the Company's business which, prior to the Employee's employment with the Company, the Employee conceived, reduced to practice, or developed, individually or jointly, and is to be excluded from the scope of this Agreement.

4.6 Notwithstanding anything in this Agreement to the contrary, the obligation of the Employee to assign or offer to assign the Employee's rights in an invention to the Company shall not extend or apply to an invention that the undersigned developed (i) entirely on the Employee's own time; (ii) without using Company equipment, supplies, facilities, or other resources, Proprietary Information or trade secret information unless such invention (a) relates to the Company's business or actual or demonstrably anticipated research or development, or (b) results from any work performed by the Employee for the Company. The Employee shall bear the burden of proof in establishing that the Employee's invention qualifies for exclusion under this Section 4.6.

5. Covenant Not To Compete.

5.1 For purposes of Part 5 of this Agreement, including each of its subparts, the following terms shall have the following meanings:

a. "**Competing Business**" shall mean any corporation, partnership, person, or other entity that is researching, developing, manufacturing, marketing, distributing, or selling any product, service, or technology that is competitive with any part of the Company's Business.

b. The "**Company's Business**" shall mean the development, manufacture, marketing, distribution, or sale of, including research directed to, any product, service, or technology that the Company is developing, manufacturing, marketing, distributing, or selling or to which the Company directed research at any time during Employee's employment with the Company. As of the date of

this Agreement, the Company's Business includes, but is not limited to, research directed to and the development, manufacture, marketing, distribution, and/or sale of: (i) isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold; (ii) size and/or shape controllable pharmaceutical or therapeutic particles molded using a polymer or low surface energy mold; (iii) film based products of or containing arrays of size and/or shape controlled structures molded from a low surface energy mold; (iv) isolated nano or micro size and/or shape controlled particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled particles fabricated from a mold; (v) nano or micro size and/or shape controllable particles molded using a polymer or low surface energy mold; or (vi) patterned drum fabrication and mold for manufacturing the products of (i)-(v) above. The Employee understands that during the Employee's employment with the Company, the Company's Business may expand or change, and the Employee agrees that any such expansions or changes shall expand or contract the definition of the Company's Business and the Employee's obligations under this Agreement accordingly.

c. "**Territory**" shall mean the following severable geographic areas: (i) the world, (ii) any country in which the Company or a Competing Business is engaged in business, (iii) any country in which the Company is engaged in business, (iv) the United States, Europe, and Asia, (v) the United States, (vi) any state, including the District of Columbia, in which the Company or a Competing Business is engaged in business, (vii) any state, including the District of Columbia, in which the Company is engaged in business, (viii) North Carolina, (ix) a one hundred mile radius of the Employee's principal place of employment or work for the Company, or (x) a one hundred mile radius of the Company's corporate headquarters.

5.2 It is recognized and understood by the Employee that, through the Employee's association with the Company, the Employee shall: (i) have access to trade secrets and confidential information of the Company, including, but not limited to, valuable information about its intellectual property, business operations and methods, and the persons with which it does business in various locations throughout the world, that is not generally known to or readily ascertainable by the Company's competitors, (ii) develop relationships with the Company's customers and others with which the Company does business, and these relationships are among the Company's most important assets, (iii) receive specialized knowledge of and specialized training in the Company's Business, and (iv) gain such knowledge of the Company's Business that, during the course of the Employee's employment with the Company and for a period of one year following the termination thereof, the Employee could not perform services for a Competing Business

without inevitably disclosing the Company's trade secrets and Proprietary Information to that Competing Business.

5.3 While employed by the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise) for any Competing Business, (ii) engage in any activities (or assist others to engage in any activities) that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing or prospective customers, suppliers, business partners, or contractors of the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (v) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company.

5.4 For a period of one year following the termination of the Employee's employment with the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise), within the Territory for any Competing Business, that are the same or substantially similar to any services that the Employee performed for the Company or that otherwise utilize skills, knowledge, and/or business contacts and/or relationships that the Employee developed while providing services to the Company, (ii) engage in any activities (or assist others to engage in any activities) within the Territory that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or any prospective customers to whom the Company has made a written proposal ("Prospective Customers"), suppliers, business partners, or contractors of the Company, during the last year of the Employee's employment with the Company, to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, (v) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or Prospective Customers, suppliers, business partners, or contractors of the Company with which the Employee worked or had business contact during the last year of the Employee's employment with the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (vi) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company. Where a Competing Business is a large enterprise with separately operated business units, the restrictions in Section 5.4(i) shall not apply to any such business unit that has no involvement in the research, development, manufacture, marketing, distribution, or sale of a product, service, or technology that is competitive with any part of the Company's Business; *provided, however*, that this sentence does not apply to any employees in a scientific role or whose role involves the research, development or maintenance of the Company's trade secrets. These obligations will continue for the specified period regardless of whether the termination of the Employee's

employment was voluntary or involuntary or with or without cause, and the specified period shall be tolled and shall not run during any time in which the Employee fails to abide by this obligations.

5.5 The Employee shall not at any time following the termination of the Employee's employment with the Company use the name or trading style of the Company in any country, or use in any country any name or trading style which is the same as or similar to any of the trade or service marks of the Company or any brand name or proposed brand name of any of the Company's products or proposed products, or represent himself or herself as carrying on or continuing or being connected with the Company or its business for any purpose whatsoever unless otherwise agreed by the Company in writing.

5.6 While employed by the Company, the Employee shall disclose to the audit committee of the Company the Employee's interest in respect of any contract or arrangement in which the Employee has any personal material interest, directly or indirectly, or any conflicts of interest (including the conflict of interest that may arise from the Employee's directorship(s) or executive position or personal investments in any corporation(s)) that may involve the Employee. Upon such disclosure, the Employee shall abstain from voting in respect of any such contract, arrangement, proposal, transaction, or matter in which the conflict of interest arises, unless and until the audit committee has determined that no such conflict of interest exists.

5.7 As an exception to the restrictions set forth in Parts 5.3 and 5.4 herein, the Employee may own passive investments in a Competing Businesses, (including, but not limited to, indirect investments through mutual funds), provided that the securities of the Competing Business are publicly traded and the Employee does not own or control more than two percent of the outstanding voting rights or equity of the Competing Business.

5.8 In the event that a court determines that the length of time, the geographic area, or the activities prohibited under this Agreement are too restrictive to be enforceable, the Court may reduce the scope of the restriction to the extent necessary to make the restriction enforceable.

5.9 The market for the Company's services and the Company's Business is highly specialized and highly competitive such that other companies and business entities compete with the Company in various locations throughout the world. The provisions set forth in this Agreement: (i) are reasonably necessary to protect the Company's legitimate business interests, (ii) are reasonable as to the time, territory, and scope of activities that are restricted, (iii) do not interfere with the Employee's ability to earn a comparable living or secure employment in the field of the Employee's choice, (iv) do not interfere and are not inconsistent with public policy or the public interest, and (v) are described with sufficient accuracy and definiteness to enable the Employee to understand the scope of the restrictions on the Employee.

5.10 Because of the unique nature of the Proprietary Information, the Employee understands and agrees that the Company will suffer irreparable harm in the event that the Employee fails to comply with any of the Employee's obligations under this Agreement and that monetary damages will be inadequate to compensate the Company for such breach. Accordingly, the Employee agrees that the Company will, in addition to any other remedies available to it at law or in equity, be entitled to injunctive relief to enforce the terms of this Agreement.

6. The Employee hereby authorizes the Company to provide a copy of this Agreement, including any exhibits hereto, to any and all of the Employee's future employers and to notify any and all such future employers that the Company intends to exercise its legal rights arising out of or in connection with this Agreement and/or any breach or any inducement of a breach hereof.

7. The Employee agrees that, during the term of the Employee's employment with the Company, the Employee will not: (i) engage in any other employment, occupation, consulting, or other business activity that conflicts with the Employee's obligations to the Company, or (ii) engage in any other activities that conflict with the Employee's obligations to the Company.

8. Debarment Certification

8.1 The Employee represents and promises that Employee:

(a) is not presently, and during the Employee's employment will not be, debarred or convicted for a crime for which Employee can be debarred under the Generic Drug Enforcement Act of 1992 (21USC335a)(the "**Act**"); and

(b) is not presently, and during the Employee's employment will not be, indicted or otherwise criminally or civilly charged by a government entity (Federal or State) with commission of the kinds of conduct for which Employee can be debarred under the Act; and

(c) will not employ or otherwise engage any individual who has been (i) debarred or (ii) convicted of a crime for which a person can be debarred under the Act, in any capacity in connection with the activities of developing or reporting data which may become part of an application for approval of a drug or biologic.

8.2 The Employee promises that, during the Employee's employment with the Company, the Employee will promptly notify the Company upon learning of or having a belief that the Employee cannot satisfy the obligations of Section 8.1 above.

9. The Employee agrees that this Agreement shall be enforced, construed and interpreted under the law of the state of North Carolina, without regard to the conflicts of laws principles thereof. The state and federal courts in North Carolina shall be the exclusive venues for the adjudication of all disputes arising out of this Agreement, and the Employee consents to the exercise of personal jurisdiction over the Employee in any such adjudication and hereby waives any and all objections and defenses to the exercise of such personal jurisdiction.

10. The Employee agrees that: (i) the Employee's employment relationship with the Company is "at-will," which means that either the Employee or the Company can terminate the relationship at any time for any reason or no reason, with or without notice, unless the Employee and the Company are parties to a contract that expressly provides a fixed term of employment, (ii) the Employee's employment relationship with the Company is contingent upon the Employee's execution of this Agreement, which is a material inducement to the Company to offer the employment relationship to the Employee and to provide Proprietary Information to the Employee, and (iii) this Agreement shall survive any termination for any reason whatsoever of the Employee's employment relationship with the Company.

11. The Employee agrees that the Company's failure to insist upon strict compliance with any provision of this Agreement shall not be deemed a waiver of such provision or of any other provision in the Agreement. The provisions of this Agreement shall be enforceable, notwithstanding the existence of any breach of this Agreement by the Company or of any claim by the Employee against the Company, whether predicated on this Agreement or otherwise.

12. This Agreement contains the entire understanding between the parties with respect to the subject matter hereof and supersedes all prior or contemporary agreements or understandings, whether written or oral, with respect thereto, provided, however, prior to the execution of this Agreement, if Company and the Employee were parties to any agreement regarding the subject matter hereof, that agreement will be superseded by this Agreement prospectively only. This Agreement may not be modified or amended except by an agreement in writing signed by both parties.

13. The Employee agrees that this Agreement is assignable by the Company at the Company's discretion and the Employee authorizes the Company's successors and assigns to enforce this Agreement for their respective benefits.

14. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

15. The Employee agrees that a breach of any provision(s) of this Agreement will toll the running of the limitation period with respect to such provision(s) for as long as such breach occurs.

16. The Employee agrees and acknowledges that the Company's agreement to employ the Employee, in and of itself, is sufficient and adequate consideration for the Employee's promises and obligations hereunder, and that the compensation and other benefits that the Company provides the Employee during the course of the Employee's employment are, independently and collectively, sufficient and adequate consideration for the Employee's promises and obligations hereunder.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Employee has executed this Agreement to be effective as of the date set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____(s)
Name:
Title:

_____(s)
NAME

SCHEDULE A

The following items are inventions, ideas, computer software programs or other equipment or technology not covered by Section 4 of this Agreement, which the undersigned conceived of or developed, wholly or in part, prior to the Employee's employment or engagement with the Company and shall be excluded from the scope of this Agreement.

If the undersigned has no such items to disclose, write "NONE" on this line: .

Description of Items: (if applicable)

Title on Document	Date on Document	Name of Witness on Document

LIQUIDIA TECHNOLOGIES, INC.

By: _____ NAME _____

Dated: _____ Dated: _____

Exhibit 10.27

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This **AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT** (the "***Agreement***") is entered into on , 2018, by and between Tim Albury ("***Executive***") and Liquidia Technologies, Inc., a Delaware corporation (the "***Company***"). Each of the Company and Executive is a "***Party***" and, collectively, they are the "***Parties***."

The Company and Executive entered into an Executive Employment Agreement dated January 22, 2018 (the "***Prior Agreement***"); and

The Company intends to file a Registration Statement on Form S-1 under the Securities Act of 1933, registering for sale to the public shares of its common stock, par value $0.001 per share (the "***Registration Statement***"); and

Upon the "effective date" of the Registration Statement, as declared by the U.S. Securities and Exchange Commission (the "***Effective Date***"), the Parties wish to have this Agreement amend, restate and supersede the Prior Agreement; and

The Parties agree that this Agreement supersedes any and all prior employment agreement and understandings between the Parties and to provide for the employment of Executive upon the terms and conditions set forth herein.

Accordingly, in consideration of the mutual promises and covenants contained herein, the Parties agree to the following:

1. EMPLOYMENT BY THE COMPANY.

1.1 **At-Will Employment**. Executive shall be employed by the Company on an "at will" basis, meaning either the Company or Executive may terminate Executive's employment at any time, with or without cause or advance notice. Any contrary representations that may have been made to Executive shall be superseded by this Agreement. This Agreement shall constitute the full and complete agreement between Executive and the Company on the "at will" nature of Executive's employment with the Company, which may be changed only in an express written agreement signed by Executive and a duly authorized officer of the Company. Executive's rights to any compensation following a termination shall be only as set forth in Section 6.

1.2 **Position**. Subject to the terms set forth herein, the Company agrees to employ Executive in the position of Senior Vice President, Chief Accounting Officer, and Executive hereby accepts such employment. Executive will report to the President and Chief Financial Officer ("***CFO***") and/or such executive designated by the CFO.

1.3 **Duties**. Executive shall faithfully perform all duties of the Company related to the position or positions held by Executive, including but not limited to all duties set forth in this Agreement and/or in the Bylaws of the Company related to the position or positions held by Executive and all additional duties that are reasonably prescribed from time to time by the CFO or other designated officers or directors of the Company. Executive shall devote Executive's full business time and attention to the performance of Executive's duties and responsibilities on behalf of the Company and in furtherance of its best interests. Executive shall perform Executive's duties under this Agreement principally out of the Company's corporate headquarters in North Carolina. In addition, Executive shall make such business trips at the

Company's expense to such places as may be necessary or advisable for the efficient operations of the Company.

1.4 **Company Policies**. Executive shall comply with all Company policies, standards, rules and regulations (a "***Company Policy***" or collectively, the "***Company Policies***") and all applicable government laws, rules and regulations that are now or hereafter in effect. Executive acknowledges receipt of copies of all written Company Policies that are in effect as of the date of this Agreement. Notwithstanding the foregoing, in the event that the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement shall control.

2. COMPENSATION.

2.1 **Salary**. Executive shall receive a monthly salary of $29,333.33, which equates to $352,000.00 on an annualized basis, payable subject to standard federal and state payroll withholding requirements in accordance with the Company's standard payroll practices ("***Base Salary***"). Executive's Base Salary may be increased from time to time by the Board of Directors of the Company (the "***Board***"). Notwithstanding anything to the contrary, the Base Salary may be reduced if the Board determines such reduction is necessary and justified by the financial condition of the Company and implements an equal percentage reduction in the base salaries of all of the Company's executive officers, but in no event will such reduction be greater than ten percent (10%) of the Base Salary. A reduction in Executive's Base Salary in accordance with the immediately preceding sentence shall not constitute a material diminution in Base Salary as described in Section 6.4(b) of this Agreement.

2.2 **Bonus**. During the period Executive is employed with the Company, Executive shall be eligible to earn for Executive's services to be rendered under this Agreement a discretionary annual cash bonus of up to 25% of Base Salary ("***Target Amount***"), subject to review and adjustment by the Company in its sole discretion, payable subject to standard federal and state payroll withholding requirements. Whether or not Executive earns any bonus will be dependent upon (a) Executive's continuous performance of services to the Company through the date any bonus is paid, except as set forth in Section 6.1(b) and Section 6.6 below; and (b) the actual achievement by Executive and the Company of the applicable performance targets and goals set by the Board in advance of, or within the first quarter of, each calendar year. The annual period over which performance is measured for purposes of this bonus is January 1 through December 31. The Board will determine in its reasonable discretion the extent to which Executive and the Company have achieved the performance goals upon which the bonus is based and the amount of the bonus, which could be below the Target Amount (and may be zero). Any bonus shall be subject to the terms of any applicable incentive compensation plan adopted by the Company. Any bonus, if earned, will be paid to Executive within the time period set forth in the incentive compensation plan, or if no such time period was established, within two and one-half months following the end of the year during which the bonus is earned.

2.3 **Benefits**. Executive will be eligible to participate on the same basis as similarly situated employees in the Company's benefit plans in effect from time to time during Executive's employment. All matters of eligibility for coverage or benefits under any benefit

plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to change, alter, or terminate any benefit plan in its sole discretion.

2.4 **Expense Reimbursement**. The Company shall reimburse Executive for all customary and appropriate business-related expenses actually incurred and documented in accordance with Company Policy, as in effect from time to time. For the avoidance of doubt, to the extent that any reimbursements payable to Executive are subject to the provisions of Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"): (a) any such reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, (b) the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and (c) the right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

3. PROPRIETARY INFORMATION, INVENTIONS, NON-COMPETITION AND NON-SOLICITATION OBLIGATIONS. The Parties have entered into a Confidentiality, Inventions and Non-Competition Agreement (the "***Confidential Information Agreement***"), which may be amended by the Parties from time to time without regard to this Agreement. The Confidential Information Agreement contains provisions that are intended by the Parties to survive and do survive termination of this Agreement.

3.1 **Permissible Communications**. Notwithstanding anything to the contrary in the Confidential Information Agreement, Executive acknowledges that nothing in the Confidential Information Agreement shall be construed to prohibit Executive from (a) filing a charge or complaint with, or participating in any proceeding before, a government agency authorized to enforce and investigate suspected violations of federal anti-discrimination laws, labor relations laws, occupational health and safety laws, wage and hour laws, and such similar state or local laws; (b) reporting possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, or (c) responding truthfully to inquiries from, or otherwise cooperating with, any governmental or regulatory investigation (the activities set forth in clauses (a) through (c) are collectively referred to as the "***Protected Activities***"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company; *provided*, *however*, that Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Proprietary Information under the Confidential Information Agreement to any parties other than the appropriate government agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications, and that any such disclosure without the Company's written consent shall constitute a material breach of this Agreement.

3.2 **Defend Trade Secrets Act.** Pursuant to the Defend Trade Secrets Act of 2016, Executive acknowledges that Executive will not have criminal or civil liability under any Federal or State trade secret law for the disclosure of a trade secret that (a) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under

seal. In addition, if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney and may use the trade secret information in the court proceeding, if Executive (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

4. **OUTSIDE ACTIVITIES DURING EMPLOYMENT**. Except with the prior written consent of the Company, which shall not be unreasonably withheld, Executive will not, while employed by the Company, undertake or engage in any other employment, occupation or business enterprise that would interfere with Executive's responsibilities and the performance of Executive's duties hereunder, except for (i) reasonable time devoted to volunteer services for or on behalf of such religious, educational, non-profit and/or other charitable organization as Executive may wish to serve, (ii) reasonable time devoted to activities in the non-profit and business communities consistent with Executive's duties, and (iii) such other activities as may be specifically approved by the Company. This restriction shall not, however, preclude Executive from owning less than one percent (1%) of the total outstanding shares of a publicly traded company, or employment or service in any capacity with Affiliates of the Company. As used in this Agreement, "***Affiliates***" means an entity under common management or control with the Company.

5. **NO CONFLICT WITH EXISTING OBLIGATIONS**. Executive represents that Executive's performance of all the terms of this Agreement and as an executive of the Company do not and will not breach any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

6. **TERMINATION OF EMPLOYMENT**. The Parties acknowledge that Executive's employment relationship with the Company is at-will. The provisions in this Section govern the amount of compensation, if any, to be provided to Executive upon termination of employment and do not alter this at-will status.

6.1 **Termination by the Company Without Cause**.

(a) The Company shall have the right to terminate Executive's employment with the Company pursuant to this Section 6.1 at any time without "Cause" (as defined in Section 6.2(b) below) by giving notice as described in Section 7.1 of this Agreement. A termination pursuant to Sections 6.3 and 6.5 below is not a termination without "Cause" for purposes of receiving the benefits described in this Section 6.1.

(b) If the Company terminates Executive's employment at any time without Cause and provided that such termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h) a "***Separation from Service***"), then Executive shall be entitled to receive the Accrued Obligations (defined below) and, subject to Executive's compliance with the obligations in Section 6.1(c) below, then Executive shall also be entitled to receive (collectively, the "***Severance Benefits***"):

(i) an amount equal to Executive's then current Base Salary for six (6) months (the "***Severance Period***"), less all applicable withholdings and deductions, paid in equal installments beginning on the Company's first regularly scheduled payroll date following the Release Effective Date (as defined in Section 6.1(c) below), with the remaining installments occurring on the Company's regularly scheduled payroll dates thereafter;

(ii) an amount equal to the bonus that Executive would have earned pursuant to Section 2.2 if Executive had remained employed through the end of the applicable fiscal year in which the termination date occurs, pro-rated based on the number of days that Executive was employed with the Company during the applicable fiscal year, payable on the date that such bonus is paid to the Company's other executives; and

(iii) payment of the employer portion of the premiums required to continue Executive's group health care coverage under the applicable provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985 ("***COBRA***"), provided that Executive timely elects to continue coverage under COBRA, until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A), (B) or (C), the "***COBRA Payment Period***"). Notwithstanding the foregoing, if at any time the Company determines in its sole discretion that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code, or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings for the remainder of the COBRA Payment Period, regardless of whether Executive elects COBRA coverage (the "***Special Severance Payment***"). Executive may, but is not obligated to, use such Special Severance Payment toward the cost of COBRA premiums. If Executive becomes eligible for coverage under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Payment Period, Executive must immediately notify the Company of such event, and all payments and obligations under this clause will cease.

(c) Executive will be paid all of the Accrued Obligations on the Company's first payroll date after Executive's date of termination from employment or earlier if required by law. Executive shall receive the Severance Benefits pursuant to Section 6.1(b) of this Agreement if: (i) Executive signs and delivers to the Company an effective, general release of claims in favor of the Company and its affiliates and representatives, in a form acceptable to the Company (the "***Release***"), by the 60th day following the termination date or such earlier date as set forth in the Release, which cannot be revoked in whole or part (if applicable) by such date or such earlier date as set forth in the Release (the date that the Release can no longer be revoked is referred to as the "***Release Effective Date***"); (ii) if Executive holds any other positions with the Company, Executive resigns such position(s) to be effective no later than the date of Executive's termination date (or such other date as requested by the Board); (iii) Executive returns all Company property in proper order and condition, reasonable wear and tear excepted, (including,

but not limited to, all books, documents, papers, materials and any other property or assets relating to the business or affairs of the Company which may be in Executive's possession or under his control but excluding copies of records related to Executive's compensation from the Company and any equity ownership in the Company); (iv) Executive complies with all post-termination obligations under this Agreement and the Confidential Information Agreement; and (v) Executive complies with the terms of the Release, including without limitation any non-disparagement and confidentiality provisions contained in the Release. To the extent that any Severance Benefits are deferred compensation under Section 409A of the Code, and are not otherwise exempt from the application of Section 409A, then, if the period during which Executive may consider and sign the Release spans two calendar years, the payment of Severance Benefits will not be made or begin until the later calendar year.

(d) For purposes of this Agreement, "***Accrued Obligations***" are (i) Executive's accrued but unpaid salary through the date of termination, (ii) any unreimbursed business expenses incurred by Executive payable in accordance with the Company's standard expense reimbursement policies, and (iii) benefits owed to Executive under any qualified retirement plan or health and welfare benefit plan in which Executive was a participant in accordance with applicable law and the provisions of such plan.

(e) The Severance Benefits provided to Executive pursuant to this Section 6.1 is in lieu of, and not in addition to, any benefits to which Executive may otherwise be entitled under any Company severance plan, policy or program.

(f) Any damages caused by the termination of Executive's employment without Cause would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.2 **Termination by the Company for Cause**.

(a) Subject to Section 6.2(c) below, the Company shall have the right to terminate Executive's employment with the Company at any time for Cause by giving notice as described in Section 7.1 of this Agreement.

(b) "***Cause***" for termination shall mean that the Company has determined in its sole discretion that Executive has engaged in any of the following: (i) any material breach of the terms of this Agreement by Executive, or the willful failure of Executive to diligently and properly perform Executive's material duties for the Company; (ii) Executive's misappropriation or unauthorized use of the Company's tangible or intangible property that causes or is likely to cause material harm to the Company or its reputation, or material breach of the Confidential Information Agreement or any other similar agreement regarding confidentiality, intellectual property rights, non-competition or non-solicitation; (iii) any material failure to comply with the Company Policies or any other policies and/or directives of the Board; (iv) Executive's use of illegal drugs or any illegal substance, or Executive's use of alcohol in any manner that materially interferes with the performance of Executive's duties under this Agreement; (v) any (A) dishonest or illegal action (including, without limitation, embezzlement) by Executive, or (B) other action, whether or not dishonest or illegal, by Executive, in either case which is materially detrimental to

the interest and well-being of the Company, including, without limitation, harm to its reputation; (vi) Executive's failure to fully disclose any material conflict of interest Executive may have with the Company in a transaction between the Company and any third party which is materially detrimental to the interest and well-being of the Company; (vii) any adverse action or omission by Executive which would be required to be disclosed pursuant to public securities laws or which would limit the ability of the Company or any entity affiliated with the Company to sell securities under any Federal or state law or which would disqualify the Company or any affiliated entity from any exemption otherwise available to it; or (viii) become prohibited by law or any order from any regulatory body or governmental body from being an employee or director of any company, firm or entity; *provided, however*, that prior to any termination of Executive for "Cause," if the grounds for such Cause are reasonably capable of cure by Executive, the Company shall provide Executive with written notice of the grounds for Cause and provide Executive with ten (10) business days in which to cure such Cause.

(c) In the event Executive's employment is terminated at any time for Cause, Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.3 **Resignation by Executive.**

(a) Executive may resign from Executive's employment with the Company at any time by giving notice as described in Section 7.1.

(b) In the event Executive resigns from Executive's employment with the Company for any reason (other than a resignation for Good Reason as described in Section 6.4 below), Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.4 **Resignation by Executive for Good Reason.**

(a) Provided Executive has not previously been notified of the Company's intention to terminate Executive's employment, Executive may resign from employment with the Company for Good Reason (as defined in Section 6.4(b) below).

(b) "***Good Reason***" for resignation shall mean the occurrence of any of the following without Executive's prior consent: (i) a material diminution in Executive's authority, duties or responsibilities; (ii) a material diminution in Executive's Base Salary; (iii) a requirement that Executive report to an employee other than the CFO; (iv) Executive's principal place of employment is relocated by more than fifty (50) miles from the Company's present location in Research Triangle Park, North Carolina; or (v) the Company materially breaches its obligations under this Agreement. In addition to any requirements set forth above, in order for any of the above events to constitute "Good Reason," Executive must (X) inform the Company of the existence of the event within sixty (60) days of the initial existence of the event, after which date the Company shall have no less than thirty (30) days to cure the event which otherwise would constitute "Good Reason" hereunder and (Y) Executive must terminate his

employment with the Company for such "Good Reason" no later than ninety (90) days after the initial existence of the event which prompted Executive's termination. Any actions taken by the Company to accommodate a disability of Executive or pursuant to the Family and Medical Leave Act shall not be a Good Reason for purposes of this Agreement.

(c) In the event Executive resigns from Executive's employment for Good Reason, and provided that such termination constitutes a Separation from Service, then subject to Executive's compliance with the obligations in Section 6.1(c) above, Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1 and on the same terms and conditions set forth in Section 6.1(c) and Section 6.1(e) as if Executive had been terminated by the Company without Cause.

(d) Any damages caused by the termination of Executive's employment for Good Reason would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.5 **Termination by Virtue of Death or Disability of Executive.**

(a) In the event of Executive's death while employed pursuant to this Agreement, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

(b) Subject to applicable state and federal law, the Company shall at all times have the right, upon written notice to Executive, to terminate this Agreement based on Executive's Disability. Termination by the Company of Executive's employment based on "***Disability***" shall mean termination because a qualified medical doctor mutually acceptable to the Company and Executive or Executive's personal representative has certified in writing that: (A) Executive is unable, because of a medically determinable physical or mental disability, to perform the essential functions of Executive's job, with or without a reasonable accommodation, for more than one hundred and eighty (180) calendar days measured from the last full day of work; or (B) by reason of mental or physical disability, it is unlikely that Executive will be able, within one hundred and eighty (180) calendar days, to resume the essential functions of Executive's job, with or without a reasonable accommodation, and to otherwise discharge Executive's duties under this Agreement. This definition shall be interpreted and applied consistent with the Americans with Disabilities Act, the Family and Medical Leave Act, and other applicable law. In the event Executive's employment is terminated based on Executive's Disability, Executive will not receive Severance Benefits or any other severance compensation or benefit, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.6 **Change in Control Benefits.** In the event the Company (or any surviving or acquiring corporation) terminates Executive's employment without Cause or Executive resigns for Good Reason within twelve (12) months following the effective date of a Change in Control (as defined under the Liquidia Technologies, Inc. 2016 Equity Incentive Plan, as may be amended from time to time by the Company (the "***Plan***")), then Executive shall be entitled to the

Accrued Obligations and, provided that Executive complies with the obligations in Section 6.1(c) of this Agreement (including the requirement to provide an effective Release), Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1(b) and on the same conditions as if Executive had been terminated by the Company without Cause; *provided, however,* that (a) the Severance Period shall be increased to nine (9) months; (b) the bonus set forth in Section 6.1(b)(ii) shall instead be payable at the Target Amount; and (c) in the event that Executive's outstanding equity as of the closing of the Change in Control is assumed or continued (in accordance with its terms) by the surviving entity in a Change in Control, then 100% of the unvested portion of such equity shall become vested.

6.7 **Cooperation With Company After Termination of Employment**. Following termination of Executive's employment for any reason and for a period of one (1) year thereafter, Executive agrees to cooperate (a) with the Company in (i) the defense of any legal matter involving any matter that arose during Executive's employment with the Company, and (ii) all matters relating to the winding up of Executive's pending work and the orderly transfer of any such pending work to such other employees as may be designated by the Company; and (b) with all government authorities on matters pertaining to any investigation, litigation or administrative proceeding pertaining to the Company. The Company will reimburse Executive for any reasonable travel and out of pocket expenses incurred by Executive in providing such cooperation. The Company will also pay Executive a per diem amount equal to Executive's Base Salary as of the date of termination divided by two hundred and thirty (230) for each day or partial day that Executive devotes to fulfilling his obligation to cooperate under this Section 6.7, unless Executive is then receiving continued payment of his Base Salary under 6.1(b)(ii), above. Following termination of Executive's employment for any reason, and in the event of a failure by Executive (following reasonable efforts by the Company to secure his voluntary cooperation) to resign from any position as officer or director of the Company, with such resignation to be effective no later than the date of Executive's termination date (or such other date as requested by the Board), the Company is hereby irrevocably authorized to appoint its then-current Chief Executive Officer to act in Executive's name and on his behalf to execute any documents and to do all things reasonably necessary to effect such resignation. Further, Executive shall not, at any time after termination of Executive's employment for any reason, represent himself as being an agent or representative of the Company, unless expressly authorized in a written agreement executed by an authorized officer of the Company.

6.8 **Application of Section 409A**.

(a) It is intended that all of the severance payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively, "***Section 409A***") provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9), and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms.

(b) The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Executive under this Agreement. The Company shall not

be liable to Executive for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A.

(c) No severance payments will be made under this Agreement unless Executive's termination of employment constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

(d) For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Executive's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

(e) If the Company determines that the severance benefits provided under this Agreement constitutes "deferred compensation" under Section 409A and if Executive is a "specified employee" of the Company, as such term is defined in Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation from Service, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Severance Benefits will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's Separation from Service, and (ii) the date of Executive's death (such earlier date, the "***Delayed Initial Payment Date***"), the Company will (1) pay to Executive a lump sum amount equal to the sum of the Severance Benefits that Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Severance Benefits had not been delayed pursuant to this Section 6.8, and (2) commence paying the balance of the Severance Benefits in accordance with the applicable payment schedule set forth in Section 6.1. No interest shall be due on any amounts deferred pursuant to this Section 6.8.

6.9 **Parachute Payments**.

(a) Notwithstanding any other provisions of this Agreement to the contrary, in the event that it shall be determined that any payment or distribution to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "***Payment***") would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, the Company shall reduce the aggregate present value of the Payments under this Agreement to the Reduced Amount (as defined below) if, and only if, reducing the Payments under this Agreement will provide Executive with a greater net after-tax amount than would be the case if no such reduction was made, taking into account the applicable federal, state, local and foreign income, employment and other taxes, including the excise tax imposed by Section 4999 of the Code. If a reduction in the Payments is necessary, such reduction shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. Within any such category of payments and benefits (that is, clauses (1), (2), (3) or (4) of this Section 6.9(a)), a reduction shall occur first with respect to amounts that are not "deferred compensation" within the meaning of Section 409A of the Code and then with respect

to amounts that are. The "***Reduced Amount***" shall be an amount expressed in present value that maximizes the aggregate present value of Payments under this Agreement without causing any Payment to be nondeductible by the Company because of Section 280G of the Code.

(b) All determinations to be made under this Section 6.9 shall be made at the Company's expense by a firm of certified public accountants of national standing selected by the Company (the "***Accounting Firm***") which may be the firm regularly auditing the financial statements of the Company. The Company and Executive shall furnish to the Accounting Firm such information and documents as the Accounting Firm may reasonably require in order to make a determination under this Section. To the extent requested by Executive, the Company shall cooperate with Executive in good faith in valuing, and the Accounting Firm shall value, services to be provided by Executive (including refraining from performing services pursuant to a covenant not to compete) before, on or after the date of the transaction which cause the application of Section 280G of the Code such that payments in respect of such services may be considered to be "reasonable compensation" within the meaning of the regulations under Section 280G of the Code. In making its determinations hereunder, the Accounting Firm shall apply reasonable, good faith interpretations regarding the applicability of Section 280G and Section 4999, along with any other applicable portions of the Code or other tax laws. The Accounting Firm shall make all determinations required to be made under this Section and shall provide detailed supporting calculations to the Company and Executive within 30 days after the Termination Date or such earlier time as is requested by the Company, and provide an opinion to Executive that he or she has substantial authority not to report any excise tax on his or her Federal income tax return with respect to any Payments. Any such determination by the Accounting Firm shall be binding upon the Company and Executive. Subject to Sections 6.1(c) and 6.9, within five business days thereafter, the Company shall pay to or distribute to or for the benefit of Executive such amounts as are then due to Executive under this Agreement.

(c) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Accounting Firm or the Company hereunder, it is possible that Payments, as the case may be, will have been made by the Company which should not have been made ("***Overpayment***") or that additional Payments, as the case may be, which will not have been made by the Company could have been made ("***Underpayment***"), in each case, consistent with the calculations required to be made hereunder. In the event that the Accounting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against Executive which the Accounting Firm believes has a high probability of success determines that an Overpayment has been made, promptly on notice and demand Executive shall repay to the Company any such Overpayment paid or distributed by the Company to or for the benefit of Executive together with interest at the applicable Federal rate provided for in Section 7872(f)(2)(A) of the Code; provided, however, that no such amount shall be payable by Executive to the Company if and to the extent such payment would not either reduce the amount on which Executive is subject to tax under Section 1 and Section 4999 of the Code or generate a refund of such taxes. In the event that the Accounting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2)(A) of the Code.

7. GENERAL PROVISIONS.

7.1 **Notices**. Any notices required hereunder to be in writing shall be deemed effectively given: (a) upon personal delivery to the Party to be notified, (b) when sent by electronic mail or confirmed facsimile if sent during normal business hours of the recipient, and if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at its primary office location and to Executive at Executive's address as listed on the Company payroll, or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other.

7.2 **Severability**. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.3 **Survival**. Provisions of this Agreement which by their terms must survive the termination of this Agreement in order to effectuate the intent of the Parties will survive any such termination, whether by expiration of the term, termination of Executive's employment, or otherwise, for such period as may be appropriate under the circumstances.

7.4 **Waiver**. If either Party should waive any breach of any provisions of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

7.5 **Complete Agreement**. This Agreement constitutes the entire agreement between Executive and the Company with regard to the subject matter hereof. This Agreement is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter and supersedes any prior oral discussions or written communications and agreements, including the Prior Agreement. This Agreement is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in writing signed by Executive and an authorized officer of the Company, subject to the approval of the Board, its compensation committee or (if necessary) the stockholders of the Company. The Parties have entered into a separate Confidential Information Agreement and have entered or may enter into separate agreements related to equity. These separate agreements govern other aspects of the relationship between the Parties, have or may have provisions that survive termination of Executive's employment under this Agreement, may be amended or superseded by the Parties without regard to this Agreement and are enforceable according to their terms without regard to the enforcement provision of this Agreement.

7.6 **Headings**. The headings of the sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.7 **Successors and Assigns**. The Company shall assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any company or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said Company or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a Party, but may not otherwise assign this Agreement or its rights and obligations hereunder. Executive may not assign or transfer this Agreement or any rights or obligations hereunder, other than to Executive's estate upon death.

7.8 **Withholding**. All amounts payable hereunder shall be subject to applicable tax withholding.

7.9 **Choice of Law**. This Agreement in all respects shall be governed by and interpreted in accordance with the laws of the State of North Carolina, both procedural and substantive, without regard to conflicts of law, except to the extent that federal laws and regulations preempt otherwise applicable law.

7.10 **Mandatory Mediation.** Prior to and as a condition of either Party's filing suit in state or federal court, the Parties shall engage in a mediated settlement conference in accordance with the North Carolina Superior Court Rules Implementing Statewide Mediation. The Parties shall mediate in good faith until settlement is reached or an impasse is declared by the mediator.

7.11 **Jurisdiction.** Each Party hereby irrevocably submits to the exclusive jurisdiction of the United States District Court located in Wake County, North Carolina, or any state court located within such state, in respect of any claim relating to this Agreement or Executive's employment with the Company, and hereby waives, and agrees not to assert, as a defense in any action, suit or proceeding in which any such claim is made that said Party is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in such courts or that the venue thereof may not be appropriate or that this Agreement may not be enforced in or by such courts. Any appellate proceedings shall take place in the appropriate courts having appellate jurisdiction over the courts set forth in this Section.

7.12 **Counterparts**. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one Party, but all of which taken together will constitute one and the same Agreement. Facsimile signatures and signatures transmitted by PDF shall be equivalent to original signatures.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first written above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____
Name: Neal Fowler
Title: Chief Executive Officer

Executive:

_____
Tim Albury

Exhibit A

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT

THIS CONFIDENTIALITY, INVENTIONS AND NON-COMPETITION AGREEMENT (this "**Agreement**") is effective as of DATE (the "**Effective Date**") by and between NAME (hereinafter "**Employee**") and Liquidia Technologies, Inc. (the "**Company**").

STATEMENT OF PURPOSE

The Employee desires to be employed by the Company, and the Company is willing to employ Employee strictly subject to Employee's agreement to be bound by the terms of this Agreement.

IN CONSIDERATION of the Company's employment of the Employee and the compensation and other benefits that the Company may provide to Employee as an employee, the Employee, intending to be legally bound, agrees to the following:

1. For purposes of this Agreement, "**Proprietary Information**" is information (whether in written or other form or whether or not patentable or protectable by copyright, trade secret, trade dress, trademark, or the like) that: (i) has been created, invented, discovered, or developed by the Employee in connection with the Employee's employment by the Company; (ii) is non-public and has been disclosed, furnished, or communicated to the Employee in connection with the Employee's employment by the Company; or (iii) is non-public and the unauthorized disclosure of which could be detrimental to the interests of the Company. Proprietary Information includes, but is not limited to, all inventions, works of authorship, trade secrets, know how, proprietary or confidential information, including, but not limited to, research, product or business plans, products, services, projects, proposals, processes, formulas, ideas, data, compositions, technology, computer programs and related source code and object code, developments, designs, drawings, marketing information and plans, customer lists, budgets, projections, partners, cost analyses, acquisition candidates, relevant parts of analysis, reviews, compilations, studies or other records and documents, and other information owned by the Company, disclosed to the Employee, or to which the Employee has been provided access or gains access, either directly or indirectly, by any means. Proprietary Information does not include information that is or becomes generally available to the public other than as a result of a disclosure by the Employee or by any other person or entity that is under a confidentiality obligation to Company with respect to such information.

2. Nondisclosure of Proprietary Information.

2.1 The Employee acknowledges and agrees that Proprietary Information is the sole property of the Company or its designee and that the Employee shall have no right,

title, license, or interest in or to any Proprietary Information. During and after the Employee's employment by the Company, the Employee shall keep in the strictest confidence and trust all Proprietary Information and shall not directly or indirectly disclose, distribute, copy, supply, or use, in whole or in part, any Proprietary Information except as approved in advance in writing by the Company. Notwithstanding the foregoing, it is understood that, at all such times, the Employee is free (i) to use information which was known to the Employee prior to employment with the Company or which is generally known in the trade or industry through no breach of this Agreement or other act or omission by the Employee, (ii) to discuss the terms of the Employee's employment, wages and working conditions to the extent expressly protected by applicable law, (iii) to report possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under such laws, (iv) to respond to inquiries from, or otherwise cooperate with, any governmental or regulatory investigation, or (v) to testify truthfully as compelled by lawful process or subpoena related to such testimony after the Employee has provided advance written notice of said subpoena to the Company's Chief Executive Officer and reasonably cooperates with the Company in any process to oppose said subpoena.

2.2 The Employee shall not use or disclose to the Company, or assist in the disclosure to the Company of, proprietary or confidential information belonging to any third parties, including any prior employer(s).

2.3 The Employee acknowledges and agrees that the Company has received and in the future may receive from third parties, including, but not limited to, potential collaborating partners or customers of the Company, confidential or proprietary information ("**Third Party Information**") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of the Employee's employment with the Company and thereafter, the Employee will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel or the Company's designee who need to know such information in connection with their work for the Company or such third party) or use Third Party Information, except in connection with the Employee's work for the Company or such third party, unless expressly approved in advance in writing by the Company. The Employee further agrees to be bound by and subject to any confidentiality or nondisclosure agreements or clauses with respect to such Third Party Information between the Company and any such third party.

2.4 Pursuant to the Defend Trade Secrets Act of 2016, the Employee acknowledges that the Employee will not have criminal or civil liability under any federal or state trade secret law for the disclosure of a trade secret that (i) is made (a) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and (b) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if the Employee files a lawsuit for retaliation by the Company for reporting a suspected violation of law, the Employee may

disclose the trade secret to the Employee's attorney and may use the trade secret information in the court proceeding, if the Employee (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

3. Upon the earliest to occur of (i) termination of the Employee's employment by the Company for any reason, (ii) termination of the Employee's access to Proprietary Information, or (iii) the request of the Company, the Employee shall return to the Company (and will not keep in Employee's possession or control or deliver to anyone else) all materials belonging to the Company, whether kept at the Employee's business office, personal residence or otherwise, including, but not limited to, all materials containing or relating to any Proprietary Information in any written, tangible, electronic or other form that the Employee may have in Employee's possession or control, and any and all mobile telephones, personal digital assistants, pagers, computer and other electronic devices and credit cards. After returning the materials and equipment described in the preceding sentence to the Company, the Employee shall not retain any copies of any such materials.

4. Ownership of Proprietary Information.

4.1 All Proprietary Information and other information, which by its nature is proprietary to the Company, relating to the Company's business or the Company's anticipated business, or based on, derived from or relating to any Proprietary Information (collectively, Proprietary Information and "**Work Product**") shall be the sole property of the Company. The Employee agrees that all Proprietary Information and Work Product created, conceived, reduced to practice, made or otherwise developed by the Employee, solely or jointly, during and in any way related to the Employee's employment, shall be the exclusive property of the Company and/or its designees or assignees, and shall be deemed "works made for hire," as that term is defined in Section 101 of the U.S. Copyright Act of 1976, as amended.

4.2 If, for any reason, any Proprietary Information and Work Product does not qualify as works made for hire, the Employee shall assign and does hereby irrevocably, unconditionally, and without encumbrance of any kind assign to the Company, and forever waives and agrees never to assert, all right, title, and interest, including without limitation, all patent, trademark, copyright, trade secret, and other intellectual property (collectively, "**Intellectual Property**") rights, in and to such Proprietary Information and Work Product. The Employee shall assist the Company, or its designee, in every proper way to secure the Company's rights in the Proprietary Information and Work Product and any Intellectual Property rights relating thereto in any and all countries, including (i) the disclosure to the Company of all pertinent information and data with respect thereto, (ii) the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company or its designee the sole and exclusive right, title and interest in and to the Proprietary Information and Work Product, and (iii) the defense of any claim, demand, action, litigation, suit, or other proceeding,

including, but not limited to, interference, cancellation, opposition, or other proceedings in respect of such applications or any registrations or patents issuing therefrom. The Employee shall continue such assistance after the termination of the Employee's employment by the Company.

4.3 During the Employee's employment by the Company, the Employee shall report promptly to the Company all Proprietary Information and Work Product created, conceived, reduced to practice, or otherwise developed by the Employee, solely or jointly.

4.4 If the Company is unable because of the Employee's mental or physical incapacity or for any other reason to secure the Employee's signature to apply for or to secure protection of any Proprietary Information and Work Product, then the Employee hereby designates and appoints the Company and its duly authorized officers and agents as its agents and attorneys-in-fact to execute and file any certificates, applications or documents and to do all of their lawful acts necessary to perfect and protect the Company's rights in the Proprietary Information and Work Product. The Employee expressly acknowledges that the foregoing power of attorney is coupled with an interest and is therefore irrevocable and shall survive the Employee's death or incompetency and the termination of the Employee's employment or engagement by the Company.

4.5 The Employee hereby represents and warrants that the Employee has fully disclosed to the Company on Schedule A attached hereto any idea, invention, discovery or process relating to the Company's business which, prior to the Employee's employment with the Company, the Employee conceived, reduced to practice, or developed, individually or jointly, and is to be excluded from the scope of this Agreement.

4.6 Notwithstanding anything in this Agreement to the contrary, the obligation of the Employee to assign or offer to assign the Employee's rights in an invention to the Company shall not extend or apply to an invention that the undersigned developed (i) entirely on the Employee's own time; (ii) without using Company equipment, supplies, facilities, or other resources, Proprietary Information or trade secret information unless such invention (a) relates to the Company's business or actual or demonstrably anticipated research or development, or (b) results from any work performed by the Employee for the Company. The Employee shall bear the burden of proof in establishing that the Employee's invention qualifies for exclusion under this Section 4.6.

5. Covenant Not To Compete.

5.1 For purposes of Part 5 of this Agreement, including each of its subparts, the following terms shall have the following meanings:

a. "**Competing Business**" shall mean any corporation, partnership, person, or other entity that is researching, developing, manufacturing, marketing, distributing, or selling any product, service, or technology that is competitive with any part of the Company's Business.

b. The "**Company's Business**" shall mean the development, manufacture, marketing, distribution, or sale of, including research directed to, any product, service, or technology that the Company is developing, manufacturing, marketing, distributing, or selling or to which the Company directed research at any time during Employee's employment with the Company. As of the date of this Agreement, the Company's Business includes, but is not limited to, research directed to and the development, manufacture, marketing, distribution, and/or sale of: (i) isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled pharmaceutical or therapeutic particles fabricated from a mold; (ii) size and/or shape controllable pharmaceutical or therapeutic particles molded using a polymer or low surface energy mold; (iii) film based products of or containing arrays of size and/or shape controlled structures molded from a low surface energy mold; (iv) isolated nano or micro size and/or shape controlled particles fabricated from a mold, including products of or containing the isolated size and/or shape controlled particles fabricated from a mold; (v) nano or micro size and/or shape controllable particles molded using a polymer or low surface energy mold; or (vi) patterned drum fabrication and mold for manufacturing the products of (i)-(v) above. The Employee understands that during the Employee's employment with the Company, the Company's Business may expand or change, and the Employee agrees that any such expansions or changes shall expand or contract the definition of the Company's Business and the Employee's obligations under this Agreement accordingly.

c. "**Territory**" shall mean the following severable geographic areas: (i) the world, (ii) any country in which the Company or a Competing Business is engaged in business, (iii) any country in which the Company is engaged in business, (iv) the United States, Europe, and Asia, (v) the United States, (vi) any state, including the District of Columbia, in which the Company or a Competing Business is engaged in business, (vii) any state, including the District of Columbia, in which the Company is engaged in business, (viii) North Carolina, (ix) a one hundred mile radius of the Employee's principal place of employment or work for the Company, or (x) a one hundred mile radius of the Company's corporate headquarters.

5.2 It is recognized and understood by the Employee that, through the Employee's association with the Company, the Employee shall: (i) have access to trade secrets and confidential information of the Company, including, but not limited to, valuable information about its intellectual property, business operations and methods, and the persons with which it does business in various locations throughout the world, that is not generally known to or readily ascertainable by the Company's competitors, (ii) develop relationships with the Company's customers and others with which the Company does business, and these relationships are among the Company's most important assets, (iii) receive specialized knowledge of and specialized training in the Company's Business, and (iv) gain

such knowledge of the Company's Business that, during the course of the Employee's employment with the Company and for a period of one year following the termination thereof, the Employee could not perform services for a Competing Business

without inevitably disclosing the Company's trade secrets and Proprietary Information to that Competing Business.

5.3 While employed by the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise) for any Competing Business, (ii) engage in any activities (or assist others to engage in any activities) that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing or prospective customers, suppliers, business partners, or contractors of the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (v) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company.

5.4 For a period of one year following the termination of the Employee's employment with the Company, the Employee will not, without the express written consent of an authorized representative of the Company: (i) perform services (as an employee, independent contractor, officer, director, or otherwise), within the Territory for any Competing Business, that are the same or substantially similar to any services that the Employee performed for the Company or that otherwise utilize skills, knowledge, and/or business contacts and/or relationships that the Employee developed while providing services to the Company, (ii) engage in any activities (or assist others to engage in any activities) within the Territory that compete with the Company's Business, (iii) own or beneficially own an equity interest in a Competing Business, (iv) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or any prospective customers to whom the Company has made a written proposal ("Prospective Customers"), suppliers, business partners, or contractors of the Company, during the last year of the Employee's employment with the Company, to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, (v) request, induce, or solicit (or assist others to request, induce, or solicit) any existing customer or Prospective Customers, suppliers, business partners, or contractors of the Company with which the Employee worked or had business contact during the last year of the Employee's employment with the Company to curtail or cancel their business with the Company or to do business within the scope of the Company's Business with a Competing Business, or (vi) request, induce, or solicit (or assist others to request, induce, or solicit) any employee of the Company to terminate his or her employment with the Company. Where a Competing Business is a large enterprise with separately operated business units, the restrictions in Section 5.4(i) shall not apply to any such business unit that has no involvement in the research, development, manufacture, marketing, distribution, or sale of a product, service, or technology that is competitive with any part of the Company's Business; *provided*, *however*, that this sentence does not apply to any employees in a scientific role or whose role involves the research, development or maintenance of the Company's trade secrets. These obligations will continue for the specified period regardless of whether the termination of the Employee's

employment was voluntary or involuntary or with or without cause, and the specified period shall be tolled and shall not run during any time in which the Employee fails to abide by this obligations.

5.5 The Employee shall not at any time following the termination of the Employee's employment with the Company use the name or trading style of the Company in any country, or use in any country any name or trading style which is the same as or similar to any of the trade or service marks of the Company or any brand name or proposed brand name of any of the Company's products or proposed products, or represent himself or herself as carrying on or continuing or being connected with the Company or its business for any purpose whatsoever unless otherwise agreed by the Company in writing.

5.6 While employed by the Company, the Employee shall disclose to the audit committee of the Company the Employee's interest in respect of any contract or arrangement in which the Employee has any personal material interest, directly or indirectly, or any conflicts of interest (including the conflict of interest that may arise from the Employee's directorship(s) or executive position or personal investments in any corporation(s)) that may involve the Employee. Upon such disclosure, the Employee shall abstain from voting in respect of any such contract, arrangement, proposal, transaction, or matter in which the conflict of interest arises, unless and until the audit committee has determined that no such conflict of interest exists.

5.7 As an exception to the restrictions set forth in Parts 5.3 and 5.4 herein, the Employee may own passive investments in a Competing Businesses, (including, but not limited to, indirect investments through mutual funds), provided that the securities of the Competing Business are publicly traded and the Employee does not own or control more than two percent of the outstanding voting rights or equity of the Competing Business.

5.8 In the event that a court determines that the length of time, the geographic area, or the activities prohibited under this Agreement are too restrictive to be enforceable, the Court may reduce the scope of the restriction to the extent necessary to make the restriction enforceable.

5.9 The market for the Company's services and the Company's Business is highly specialized and highly competitive such that other companies and business entities compete with the Company in various locations throughout the world. The provisions set forth in this Agreement: (i) are reasonably necessary to protect the Company's legitimate business interests, (ii) are reasonable as to the time, territory, and scope of activities that are restricted, (iii) do not interfere with the Employee's ability to earn a comparable living or secure employment in the field of the Employee's choice, (iv) do not interfere and are not inconsistent with public policy or the public interest, and (v) are described with sufficient accuracy and definiteness to enable the Employee to understand the scope of the restrictions on the Employee.

5.10 Because of the unique nature of the Proprietary Information, the Employee understands and agrees that the Company will suffer irreparable harm in the event that the Employee fails to comply with any of the Employee's obligations under this Agreement and that monetary damages will be inadequate to compensate the Company for such breach. Accordingly, the Employee agrees that the Company will, in addition to any other remedies available to it at law or in equity, be entitled to injunctive relief to enforce the terms of this Agreement.

6. The Employee hereby authorizes the Company to provide a copy of this Agreement, including any exhibits hereto, to any and all of the Employee's future employers and to notify any and all such future employers that the Company intends to exercise its legal rights arising out of or in connection with this Agreement and/or any breach or any inducement of a breach hereof.

7. The Employee agrees that, during the term of the Employee's employment with the Company, the Employee will not: (i) engage in any other employment, occupation, consulting, or other business activity that conflicts with the Employee's obligations to the Company, or (ii) engage in any other activities that conflict with the Employee's obligations to the Company.

8. Debarment Certification

8.1 The Employee represents and promises that Employee:

(a) is not presently, and during the Employee's employment will not be, debarred or convicted for a crime for which Employee can be debarred under the Generic Drug Enforcement Act of 1992 (21USC335a)(the "**Act**"); and

(b) is not presently, and during the Employee's employment will not be, indicted or otherwise criminally or civilly charged by a government entity (Federal or State) with commission of the kinds of conduct for which Employee can be debarred under the Act; and

(c) will not employ or otherwise engage any individual who has been (i) debarred or (ii) convicted of a crime for which a person can be debarred under the Act, in any capacity in connection with the activities of developing or reporting data which may become part of an application for approval of a drug or biologic.

8.2 The Employee promises that, during the Employee's employment with the Company, the Employee will promptly notify the Company upon learning of or having a belief that the Employee cannot satisfy the obligations of Section 8.1 above.

9. The Employee agrees that this Agreement shall be enforced, construed and interpreted under the law of the state of North Carolina, without regard to the conflicts of laws principles thereof. The state and federal courts in North Carolina shall be the exclusive venues for the adjudication of all disputes arising out of this Agreement, and the Employee consents to the exercise of personal jurisdiction over the Employee in any such adjudication and hereby waives any and all objections and defenses to the exercise of such personal jurisdiction.

10. The Employee agrees that: (i) the Employee's employment relationship with the Company is "at-will," which means that either the Employee or the Company can terminate the relationship at any time for any reason or no reason, with or without notice, unless the Employee and the Company are parties to a contract that expressly provides a fixed term of employment, (ii) the Employee's employment relationship with the Company is contingent upon the Employee's execution of this Agreement, which is a material inducement to the Company to offer the employment relationship to the Employee and to provide Proprietary Information to the Employee, and (iii) this Agreement shall survive any termination for any reason whatsoever of the Employee's employment relationship with the Company.

11. The Employee agrees that the Company's failure to insist upon strict compliance with any provision of this Agreement shall not be deemed a waiver of such provision or of any other provision in the Agreement. The provisions of this Agreement shall be enforceable, notwithstanding the existence of any breach of this Agreement by the Company or of any claim by the Employee against the Company, whether predicated on this Agreement or otherwise.

12. This Agreement contains the entire understanding between the parties with respect to the subject matter hereof and supersedes all prior or contemporary agreements or understandings, whether written or oral, with respect thereto, provided, however, prior to the execution of this Agreement, if Company and the Employee were parties to any agreement regarding the subject matter hereof, that agreement will be superseded by this Agreement prospectively only. This Agreement may not be modified or amended except by an agreement in writing signed by both parties.

13. The Employee agrees that this Agreement is assignable by the Company at the Company's discretion and the Employee authorizes the Company's successors and assigns to enforce this Agreement for their respective benefits.

14. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

15. The Employee agrees that a breach of any provision(s) of this Agreement will toll the running of the limitation period with respect to such provision(s) for as long as such breach occurs.

16. The Employee agrees and acknowledges that the Company's agreement to employ the Employee, in and of itself, is sufficient and adequate consideration for the Employee's promises and obligations hereunder, and that the compensation and other benefits that the Company provides the Employee during the course of the Employee's employment are, independently and collectively, sufficient and adequate consideration for the Employee's promises and obligations hereunder.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Employee has executed this Agreement to be effective as of the date set forth above.

LIQUIDIA TECHNOLOGIES, INC.

By: _____(s)
Name:
Title:

_____(s)
NAME

SCHEDULE A

The following items are inventions, ideas, computer software programs or other equipment or technology not covered by Section 4 of this Agreement, which the undersigned conceived of or developed, wholly or in part, prior to the Employee's employment or engagement with the Company and shall be excluded from the scope of this Agreement.

If the undersigned has no such items to disclose, write "NONE" on this line: .

Description of Items: (if applicable)

Title on Document	Date on Document	Name of Witness on Document

LIQUIDIA TECHNOLOGIES, INC.

By: _____

Dated: _____

NAME

Dated: _____

LIQUIDIA TECHNOLOGIES, INC. ANNUAL CASH BONUS PLAN

1. Background and Purpose.

1.1 Purpose. The purpose of the Liquidia Technologies, Inc. Annual Cash Bonus Plan (the "**Plan**") is to motivate and reward eligible employees by making a portion of their cash compensation dependent on the achievement of certain corporate, business unit and individual performance goals.

1.2 Effective Date. The Plan is effective as of , 2018 (the "**Effective Date**") and shall remain in effect until it has been terminated pursuant to **Section 9.6**.

2. Definitions. The following terms shall have the following meanings:

2.1 "**Affiliate**" means any corporation or other entity controlled by the Company.

2.2 "**Award**" means an award granted pursuant to the Plan, which shall be earned contingent on the employment requirement set forth in **Section 6.3** and the attainment of the Performance Goals with respect to a Performance Period, as determined by the Committee pursuant to **Section 6.1**.

2.3 "**Base Salary**" means the Participant's annualized rate of base salary on the last day of the Performance Period before (i) deductions for taxes or benefits and (ii) deferrals of compensation pursuant to any Company or Affiliate-sponsored plans.

2.4 "**Board**" means the Board of Directors of the Company, as constituted from time to time.

2.5 "**Cause**" means, with respect to a Participant, except as otherwise provided in the Participant's employment agreement, (i) the Participant's plea of guilty or nolo contendere to, or conviction of, (A) a felony (or its equivalent in a non-United States jurisdiction) or (B) other conduct of a criminal nature that has or is likely to have a material adverse effect on the reputation or standing in the community of the Company, any of its Affiliates or a successor to the Company or an Affiliate, as determined by the Committee in its sole discretion, or that legally prohibits the Participant from working for the Company, a successor to the Company or an Affiliate; (ii) a breach by the Participant of a regulatory rule that adversely affects the Participant's ability to perform the Participant's employment duties to the Company, any of its Subsidiaries or a successor to the Company or an Affiliate, in any material respect; or (iii) the Participant's failure, in any material respect, to (A) perform the Participant's employment duties, (B) comply with the applicable policies of the Company, or of its Affiliates, or a successor to the Company or an Affiliate, or (C) comply with covenants contained in any contract to which the Participant is a party; provided, however, that the Participant shall be provided

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a written notice describing in reasonable detail the facts which are considered to give rise to a breach described in this clause (iii) and the Participant shall have 30 days following receipt of such written notice (the "**Cure Period**") during which the Participant may remedy the condition and, if so remedied, no termination for Cause shall exist.

2.6 "**Change in Control**" means the first of the following to occur: (i) a Change in Ownership of the Company, (ii) a Change in Effective Control of the Company, or (iii) a Change in the Ownership of Assets of the Company, as described herein and construed in accordance with Section 409A of the Code.

(a) A "Change in Ownership of the Company" shall occur on the date that any one Person acquires, or Persons Acting as a Group acquire, ownership of the capital stock of the Company that, together with the stock held by such Person or Group, constitutes more than 50% of the total fair market value or total voting power of the capital stock of the Company. However, if any one Person is, or Persons Acting as a Group are, considered to own more than 50%, on a fully diluted basis, of the total fair market value or total voting power of the capital stock of the Company, the acquisition of additional stock by the same Person or Persons Acting as a Group is not considered to cause a Change in Ownership of the Company or to cause a Change in Effective Control of the Company (as described below). An increase in the percentage of capital stock owned by any one Person, or Persons Acting as a Group, as a result of a transaction in which the Company acquires its stock in exchange for property will be treated as an acquisition of stock.

(b) A "Change in Effective Control of the Company" shall occur on the date either (A) a majority of members of the Board is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of the Board before the date of the appointment or election, or (B) any one Person, or Persons Acting as a Group, acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such Person or Persons) ownership of stock of the Company possessing 50% or more of the total voting power of the stock of the Company.

(c) A "Change in the Ownership of Assets of the Company" shall occur on the date that any one Person acquires, or Persons Acting as a Group acquire (or has or have acquired during the 12-month period ending on the date of the most recent acquisition by such Person or Persons), assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately before such acquisition or acquisitions. For this purpose, gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

The following rules of construction apply in interpreting the definition of Change in Control:

(i) A "**Person**" means any individual, entity or group within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended, other than employee benefit plans sponsored or maintained by the Company and by entities controlled by the Company or an underwriter, initial purchaser or placement agent temporarily holding the capital stock of the Company pursuant to a registered public offering.

(ii) Persons will be considered to be "**Persons Acting as a Group (or Group)**" if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the corporation. If a Person owns stock in both corporations that enter into a merger, consolidation, purchase or acquisition of stock, or similar transaction, such shareholder is considered to be acting as a Group with other shareholders only with respect to the ownership in that corporation before the transaction giving rise to the change and not with respect to the ownership interest in the other corporation. Persons will not be considered to be acting as a Group solely because they purchase assets of the same corporation at the same time or purchase or own stock of the same corporation at the same time, or as a result of the same public offering.

(iii) A Change in Control shall not include a transfer to a related person as described in Section 409A of the Code or a public offering of capital stock of the Company.

(iv) For purposes of the definition of Change in Control, Section 318(a) of the Code applies to determine stock ownership. Stock underlying a vested option is considered owned by the individual who holds the vested option (and the stock underlying an unvested option is not considered owned by the individual who holds the unvested option). For purposes of the preceding sentence, however, if a vested option is exercisable for stock that is not substantially vested (as defined by Treasury Regulation §1.83-3(b) and (j)), the stock underlying the option is not treated as owned by the individual who holds the option.

2.7 "**Code**" means the U.S. Internal Revenue Code of 1986, as amended from time to time, including any regulations or authoritative guidance promulgated thereunder and successor provisions thereto.

2.8 "**Committee**" means the Compensation Committee of the Board or such other committee appointed by the Board to administer the Plan pursuant to **Section 3.1**.

2.9 "**Company**" means Liquidia Technologies, Inc., a North Carolina corporation, and any successor thereto.

2.10 "**Company Performance Metrics**" means criteria established by the Committee relating to any of the following, as it may apply to one or more business units, divisions, or Affiliates, or on a Company-wide basis, and in absolute terms, relative to a base period, or relative to the performance of one or more comparable companies, peer groups, or an index covering multiple companies, which, may include, but is not limited to, any of the following: product research and development; completion of an identified special project; clinical trials; regulatory filings or approvals; patent application or issuance; manufacturing or process development; sales or net sales; market share; market penetration; economic value added; customer service; customer satisfaction; inventory control; balance of cash, cash equivalents and marketable securities; growth in assets; key hires; employee satisfaction; employee retention; business expansion; acquisitions, divestitures, joint ventures; capital or fund raising to

support operations; government grants; license arrangements; collaboration or customer agreements or arrangements; legal compliance or safety and risk reduction; or such other measures as determined by the Committee consistent with these performance measures.

2.11 "**Individual Performance Metrics**" means criteria established by the Committee relating to a Participant, which, may include, but shall not be limited to, the following: individual performance during the Performance Period relative to others in the business unit taking into consideration the level of difficulty of the individual's objectives, the consistency of his or her actions with corporate values, the level of performance vs. objectives, the individual's most recent performance rating (if applicable), past performance and future potential, and outside benchmark market data for similar positions.

2.12 "**Negative Discretion**" means the discretion of the Committee to reduce or eliminate the size of an Award in accordance with **Section 6.1(b)** of the Plan.

2.13 "**Participant**" means as to any Performance Period, the employees of the Company or an Affiliate who are designated by the Committee to participate in the Plan for that Performance Period.

2.14 "**Performance Criteria**" means the performance criteria upon which the Performance Goals for a particular Performance Period are based, as determined by Committee or the management of the Company which include either Company Performance Metrics or Individual Performance Metrics or a combination thereof.

2.15 "**Performance Goals**" means the goals selected by the Committee, in its discretion to be applicable to a Participant for any Performance Period. Performance Goals shall be based upon one or more Performance Criteria. Performance Goals may include a threshold level of performance below which no Award will be paid and levels

of performance at which specified percentages of the Target Award will be paid and may also include a maximum level of performance above which no additional Award amount will be paid.

2.16 "**Performance Period**" means the period for which performance is calculated, which shall be the Plan Year or a portion thereof, unless a longer period is otherwise established by the Committee.

2.17 "**Plan**" means the Liquidia Technologies, Inc. Annual Cash Bonus Plan, as hereafter amended from time to time.

2.18 "**Plan Year**" means the Company's fiscal year, which commences on January 1st and ends on December 31st or such other period.

2.19 "**Pro-rated Award**" means an amount equal to the Award otherwise payable to the Participant for a Performance Period in which the Participant was actively employed by the Company or an Affiliate for only a portion thereof, multiplied by a fraction, the numerator of which is the number of days the Participant worked during the Performance Period and the denominator of which is the number of days in the Performance Period.

2.20 "**Target Award**" means the target award payable under the Plan to a Participant for a particular Performance Period, expressed as a percentage of the Participant's Base Salary. In special circumstances, the target award may be expressed as a fixed amount of cash.

3. Administration.

3.1 Administration By the Committee. The Plan shall be administered by the Committee which shall consist of not less than two (2) members of the Board.

3.2 Authority of the Committee. Subject to the provisions of the Plan and applicable law, the Committee shall have the power, in addition to other express powers and authorizations conferred on the Committee by the Plan, to: (i) designate Participants; (ii) determine the terms and conditions of any Award; (iii) determine whether, to what extent, and under what circumstances Awards may be forfeited or suspended; (iv) interpret, administer, reconcile any inconsistency, correct any defect and/or supply any omission in the Plan or any instrument or agreement relating to, or Award granted under, the Plan; (v) establish, amend, suspend, or waive any rules for the administration, interpretation and application of the Plan; and (vi) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of the Plan.

3.3 Decisions Binding. All determinations and decisions made by the Committee, the Board, and any delegate of the Committee pursuant to the provisions of the Plan shall be final, conclusive and binding on all persons, and shall be given the maximum deference permitted by law.

3.4 Delegation By the Committee. The Committee, in its sole discretion, may delegate all or part of its authority and powers under the Plan to one or more directors and/or officers of the Company; provided, however, that the Committee may not delegate its responsibility to make Awards to executive officers.

3.5 Agents; Limitation of Liability. The Committee may appoint agents to assist in administering the Plan. The Committee and each member thereof shall be entitled to, in good faith, rely or act upon any report or other information furnished to it or him by any officer or employee of the Company, the Company's certified public accountants, consultants or any other agent assisting in the administration of the Plan. Members of the Committee and any officer or employee of the Company acting at the direction or on behalf of the Committee shall not be personally liable for any action or determination taken or made in good faith with respect to the Plan, and shall, to the extent permitted by law, be fully indemnified and protected by the Company with respect to any such action or determination.

4. Eligibility and Participation.

4.1 Eligibility. Employees of the Company and its participating Affiliates are eligible to participate in the Plan.

4.2 Participation. The Committee, in its discretion, shall select the persons who shall be Participants for the Performance Period. Only eligible individuals who are designated by the Committee to participate in the Plan with respect to a particular Performance Period may participate in the Plan for that Performance Period. An individual who is designated as a Participant for a given Performance Period is not guaranteed or assured of being selected for participation in any subsequent Performance Period.

4.3 New Hires; Newly Eligible Participants. A newly hired or newly eligible Participant will be eligible to receive a Pro-rated Award reflecting participation for a portion of the Performance Period.

4.4 Leaves of Absence. If a Participant is on a leave of absence, including due to disability, for a portion of a Performance Period, the Participant will be eligible to receive a Pro-rated Award reflecting participation for the period during which he or she was actively employed and not any period when he or she was on leave.

5. Terms of Awards.

5.1 Determination of Target Awards. Prior to or within the first quarter of each Plan Year, the Committee, in its sole discretion, shall establish the Target Award for each Participant, the payment of which shall be conditioned on the achievement of the Performance Goals for the Performance Period.

5.2 Adjustments. The Committee is authorized, in its sole discretion, to adjust or modify the calculation of a Performance Goal for a Performance Period during the Performance Period as it deems desirable and appropriate.

6. Payment of Awards.

6.1 Determination of Awards.

(a) Subject to **Section 6.3**, following the completion of each Performance Period, the Committee shall determine the extent to which the Performance Goals have been achieved or exceeded. If the employment requirement set forth in **Section 6.3** and the minimum Performance Goals established by the Committee are not achieved, then no award will be earned under this Plan.

(b) In determining the amount of each Award, the Committee may reduce or eliminate the amount of an Award by applying Negative Discretion if, in its sole discretion, such reduction or elimination is appropriate.

6.2 Form and Timing of Payment. Except as otherwise provided herein, as soon as practicable following the Committee's determination pursuant to Section 6.1 for the applicable Performance Period, each Participant shall receive a cash lump sum payment of his or her Award, less required withholding. In no event shall such payment be made later than 2 1/2 months following the end of the Performance Period.

6.3 Employment Requirement. Except as otherwise provided in **Section 7**, no Award may be earned by any Participant who is not actively employed by the Company or an Affiliate on the date that Awards are paid.

6.4 Deferral of Awards. The Committee, in its sole discretion, may permit a Participant to defer the payment of an Award that would otherwise be paid under the Plan. Any deferral election shall be subject to such rules and procedures as shall be determined by the Committee in its sole discretion.

7. Termination of Employment.

7.1 Employment Requirement. Except as otherwise provided in Section 7.2 or pursuant to the terms of a Participant's employment agreement or similar agreement with the Company, if a Participant's employment terminates for any reason prior to the date that Awards are paid, the Participant shall no longer be eligible to earn an Award for the Performance Period. However, except in the event the Participant is terminated for Cause, the Committee, in its sole discretion, may pay a Pro-rated Award reflecting the Participant's participation for a portion of the Performance Period. Such Pro-rated Award will be paid at the same time and in the same manner as Awards are paid to other Participants.

7.2 Termination of Employment Due to Death. If a Participant's employment is terminated by reason of his or her death during a Performance Period, the Participant or his or her beneficiary will be paid a Pro-rated Award reflecting participation for a portion of the Performance Period. Payment of such Pro-rated Award will be made at the same time and in the same manner as Awards are paid to other Participants.

8. Change in Control.

If a Change in Control occurs during a Performance Period, subject to the terms of any Company plan or a Participant's employment agreement, change in control agreement, severance agreement or similar agreement, as applicable, the Committee may, but is not required to, provide for a Participant to be paid a Pro-rated Award based on actual or target performance, as determined by the Committee. Such Pro-rated Awards, if any, paid in connection with a Change in Control, will be paid within 30 days following the Change in Control.

9. General Provisions.

9.1 Compliance With Legal Requirements. The Plan and the granting of Awards shall be subject to all applicable federal and state laws, rules and regulations, and to such approvals by any regulatory or governmental agency as may be required.

9.2 Non-transferability. A person's rights and interests under the Plan, including any Award previously made to such person or any amounts payable under the Plan may not be assigned, pledged, or transferred, except in the event of the Participant's death, to a designated beneficiary in accordance with the Plan, or in the absence of such designation, by will or the laws of descent or distribution.

9.3 No Right to Employment. Nothing in the Plan or in any notice of Award shall confer upon any person the right to continue in the employment of the Company or any Affiliate or affect the right of the Company or any Affiliate to terminate the employment of any Participant.

9.4 No Right to Award. Unless otherwise expressly set forth in an employment agreement signed by the Company and a Participant, a Participant shall not have any right to any Award under the Plan until such Award has been paid to such Participant and participation in the Plan in one Performance Period does not connote any right to become a Participant in the Plan in any future Performance Period.

9.5 Withholding. The Company shall have the right to withhold from any Award, any federal, state or local income and/or payroll taxes required by law to be withheld and to take such other action as the Committee may deem advisable to enable the Company and Participants to satisfy obligations for the payment of withholding taxes and other tax obligations relating to an Award.

9.6 Amendment or Termination of the Plan. The Board or the Committee may, at any time, amend, suspend or terminate the Plan in whole or in part. Notwithstanding the foregoing, no amendment shall adversely affect the rights of any Participant to Awards allocated prior to such amendment, suspension or termination.

9.7 Unfunded Status. Nothing contained in the Plan, and no action taken pursuant to its provisions, shall create or be construed to create a trust of any kind or a fiduciary relationship between the Company and any Participant, beneficiary or legal representative or any other person. To the extent that a person acquires a right to receive payments under the Plan, such right shall be no greater than the right of an unsecured general creditor of the Company. All payments to be made hereunder shall be paid from the general funds of the Company and no special or separate fund shall be established and no segregation of assets shall be made to assure payment of such amounts except as expressly set forth in the Plan. The Plan is not intended to be subject to the Employee Retirement Income Security Act of 1974, as amended (ERISA).

9.8 Governing Law. The Plan shall be construed, administered and enforced in accordance with the laws of North Carolina without regard to conflicts of law.

9.9 Beneficiaries. To the extent that the Committee permits beneficiary designations, any payment of Awards due under the Plan to a deceased Participant shall be paid to the beneficiary duly designated by the Participant in accordance with the Company's practices. If no such beneficiary has been designated or survives the Participant, payment shall be made by will or the laws of descent or distribution.

9.10 Section 409A of the Code. It is intended that payments under the Plan qualify as short-term deferrals exempt from the requirements of Section 409A of the Code. In the event that any Award does not qualify for treatment as an exempt short-term deferral, it is intended that such amount will be paid in a manner that satisfies the requirements of Section 409A of the Code. The Plan shall be interpreted and construed accordingly.

9.11 Expenses. All costs and expenses in connection with the administration of the Plan shall be paid by the Company.

9.12 Section Headings. The headings of the Plan have been inserted for convenience of reference only and in the event of any conflict, the text of the Plan, rather than such headings, shall control.

9.13 Severability. In the event that any provision of the Plan shall be considered illegal or invalid for any reason, such illegality or invalidity shall not affect the remaining provisions of the Plan, but shall be fully severable, and the Plan shall be construed and enforced as if such illegal or invalid provision had never been contained therein.

9.14 Gender and Number. Except where otherwise indicated by the context, wherever used, the masculine pronoun includes the feminine pronoun; the plural shall include the singular, and the singular shall include the plural.

9.15 Non-exclusive. Nothing in the Plan shall limit the authority of the Company, the Board or the Committee to adopt such other compensation arrangements, as it may deem desirable for any Participant.

9.16 Notice. Any notice to be given to the Company or the Committee pursuant to the provisions of the Plan shall be in writing and directed to the Secretary of the Company at 419 Davis Drive, Suite 100 Morrisville, North Carolina 27560.

9.17 Successors. All obligations of the Company under the Plan with respect to Awards granted hereunder shall be binding upon any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation or otherwise, of all or substantially all of the assets of the Company.

9.18 Clawback. All Awards may be subject to the Company's clawback policy as in effect from time to time and, in accordance with such policy, may be subject to the requirement that the Awards be repaid to the Company after they have been distributed to the Participant.

The action permitted to be taken by the Board under this **Section 9.18** is in addition to, and not in lieu of, any and all other rights of the Board and/or the Company under applicable law and shall apply notwithstanding anything to the contrary in the Plan.

Liquidia Technologies, Inc.
Executive Severance and Change in Control Plan

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ARTICLE I
Statement of Purpose and Effective Date

1.01 Purpose. Liquidia Technologies, Inc., a Delaware corporation (the "Company"), hereby establishes the Liquidia Technologies Executive Severance and Change in Control Plan (the "Plan"). The Plan is intended to encourage and motivate key employees to devote their full attention to the performance of their assigned duties without the distraction or concerns regarding their involuntary termination of employment. The Company believes that it is in the best interests of the shareholders of the Company to provide financial assistance through severance payments and other benefits to eligible key employees who are involuntarily terminated. With respect to each Participant, the Plan supersedes all plans, agreements, or other arrangements for severance benefits or for enhanced severance payments whether or not before, on or after a change in control, except as specifically provided herein. To the extent the Plan provides deferred compensation it is an unfunded plan primarily for the purposes of providing deferred compensation for a select group of management or highly compensated employees.

1.02 Effective Date. The Compensation Committee of the Board of Directors of the Company approved the Plan on March 3, 2017 and the Plan shall become effective as of the date the Company's common stock is listed on a national securities exchange or an established securities market (such date, the "Effective Date").

ARTICLE II
Definitions

When used in this Plan, the terms specified below have the following meanings:

2.01 "Accrued Annual Incentive" means the amount of any annual incentive earned in a year ended before the Termination Date, but not yet paid to a Participant as of the Termination Date, other than amounts that he or she has elected to defer or that have been automatically deferred.

2.02 "Accrued Base Salary" means the amount of a Participant's Base Salary that is accrued but unpaid as of the Termination Date, other than amounts that he or she has elected to defer.

2.03 "Accrued Obligations" means, as of any date, the sum of a Participant's Accrued Base Salary, Accrued Annual Incentive, any accrued but unpaid vacation pay, unreimbursed expenses for which proper documentation is provided, and any other vested amounts and benefits that are to be paid or provided to the Participant by the Company under the Company's plans (other than this Plan and other than any Section 409A Deferred Compensation), but which have not yet been paid or provided (as applicable).

2.04 "Affiliate" means any person with whom the Company would be considered a single employer under Sections 414(b) and 414(c) of the Code and Treas. Reg. §1.409A-3(i)(5)(ii), except that in applying Sections 1563(a)(1), (2), and (3) of the Code for purposes of determining a controlled group of corporations under Section 414(b) of the Code; the language "at least 50 percent" shall be used instead of "at least 80 percent" in each place it appears in Sections 1563(a)(1), (2), and (3) of the Code, and in applying Treas. Reg. § 1.414(c)-(2) for purposes of determining a controlled group of trades or businesses under Section 414(c) of the Code, the language "at least 50 percent" shall be used instead of "at least 80 percent" in each place it appears in Treas. Reg. § 1.414(c)-(2). Notwithstanding the foregoing, where justified by legitimate business criteria as determined by the Committee in its sole discretion, "at least 20 percent" shall be substituted for "at least 50 percent" in the preceding sentence in determining whether a Participant has a Termination of Employment.

2.05 "Award Agreement" means a written agreement between the Company and the Participant setting forth the terms and conditions of a stock-based award granted to the Participant under any of the Company's stock incentive plans, now or hereafter existing.

2.06 "Base Salary" means an Employee's monthly rate of salary as of any date.

2.07 "Board" means the Board of Directors of the Company or, from and after a Change in Control that gives rise to a surviving corporation to the Company, the Board of Directors of such surviving corporation.

2.08 "Cause" means any one or more of the following, as determined by the Committee or its delegate in its sole discretion:

(a) any act or omission by a Participant which, if convicted by a court of law, would constitute a felony or a crime of moral turpitude;

(b) a Participant's dishonesty or material violation of standards of integrity in the course of fulfilling his or her employment duties to the Company or any Affiliate;

(c) insubordination or a material violation of a material written policy of the Company or any Affiliate, violation of which would be grounds for dismissal under applicable Company policy;

(d) willful, repeated failure on the part of the Participant to perform his or her employment duties (provided that such duties are ethical and proper under applicable law) in any material respect, after reasonable written notice of such failure and an opportunity to correct it under a circumstance where the conduct constituting "Cause" is reasonably open to a cure (for instance, where the conduct does not involve a violation of trust or otherwise adversely affect the relationship between the Employee and the Employer on a going-forward basis), and the period to correct shall be established by the Committee;

(e) any act or omission materially adverse to the interest of the Company or any Affiliate, or reasonably likely to result in material harm to the Company or any Affiliate;

(f) failure to comply in any material respect with any Company policy, code of conduct, ethics or insider trading policy; or

(g) failure to comply in any material respect with the Foreign Corrupt Practices Act, the Securities Act of 1933, the Securities Exchange Act of 1934, the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or any rules or regulations thereunder, or any similar, applicable statute, regulation or legal requirement.

2.09 "Change Date" means the first date on which a Change in Control occurs before the termination of the Plan.

2.10 "Change in Control" means the first of the following to occur: (i) a Change in Ownership of Liquidia Technologies, (ii) a Change in Effective Control of Liquidia Technologies, or (iii) a Change in the Ownership of Assets of Liquidia Technologies, as described herein and construed in accordance with Code section 409A.

(a) A "Change in Ownership of Liquidia Technologies" shall occur on the date that any one Person acquires, or Persons Acting as a Group acquire, ownership of the capital stock of Liquidia Technologies that, together with the stock held by such Person or Group, constitutes more than 50% of the total fair market value or total voting power of the capital stock of Liquidia Technologies. However, if any one Person is, or Persons Acting as a Group are, considered to own more than 50%, on a fully diluted basis, of the total fair market

value or total voting power of the capital stock of Liquidia Technologies, the acquisition of additional stock by the same Person or Persons Acting as a Group is not considered to cause a Change in Ownership of Liquidia Technologies or to cause a Change in Effective Control of Liquidia Technologies (as described below). An increase in the percentage of capital stock owned by any one Person, or Persons Acting as a Group, as a result of a transaction in which Liquidia Technologies acquires its stock in exchange for property will be treated as an acquisition of stock.

(b) A "Change in Effective Control of Liquidia Technologies" shall occur on the date either (A) a majority of members of Liquidia Technologies' Board is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of Liquidia Technologies' Board before the date of the appointment or election, or (B) any one Person, or Persons Acting as a Group, acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such Person or Persons) ownership of stock of Liquidia Technologies possessing 50% or more of the total voting power of the stock of Liquidia Technologies.

(c) A "Change in the Ownership of Assets of Liquidia Technologies" shall occur on the date that any one Person acquires, or Persons Acting as a Group acquire (or has or have acquired during the 12-month period ending on the date of the most recent acquisition by such Person or Persons), assets from Liquidia Technologies that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of Liquidia Technologies immediately before such acquisition or acquisitions. For this purpose, gross fair market value means the value of the assets of Liquidia Technologies, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

The following rules of construction apply in interpreting the definition of Change in Control:

(i) A "Person" means any individual, entity or group within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended, other than employee benefit plans sponsored or maintained by Liquidia Technologies and by entities controlled by Liquidia Technologies or an underwriter, initial purchaser or placement agent temporarily holding the capital stock of Liquidia Technologies pursuant to a registered public offering.

(ii) Persons will be considered to be Persons Acting as a Group (or Group) if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the corporation. If a Person owns stock in both corporations that enter into a merger, consolidation, purchase or acquisition of stock, or similar transaction, such shareholder is considered to be acting as a Group with other shareholders only with respect to the ownership in that corporation before the transaction giving rise to the change and not with respect to the ownership interest in the other corporation. Persons will not be considered to be acting as a Group solely because they purchase assets of the same corporation at the same time or purchase or own stock of the same corporation at the same time, or as a result of the same public offering.

(iii) A Change in Control shall not include a transfer to a related person as described in Code section 409A or a public offering of capital stock of Liquidia Technologies.

(iv) For purposes of the definition of Change in Control, Section 318(a) of the Code applies to determine stock ownership. Stock underlying a vested option is considered owned by the individual who holds the vested option (and the stock underlying an unvested option is not considered owned by the individual who holds the unvested option). For purposes of the preceding sentence, however, if a vested option is

exercisable for stock that is not substantially vested (as defined by Treasury Regulation §1.83-3(b) and (j)), the stock underlying the option is not treated as owned by the individual who holds the option.

2.11 "Code" means the Internal Revenue Code of 1986, as amended. Reference to any provision of the Code or regulation thereunder, shall include any successor provision and any regulations and other applicable guidance or pronouncement of the Internal Revenue Service or the Department of the Treasury, and applicable case law relating to such Section of the Code.

2.12 "Committee" means the Compensation Committee of the Board. To the extent the Committee has delegated authority to another person or persons the term "Committee" shall refer to such other person or persons.

2.13 "Company" means Liquidia Technologies, Inc. and any successor thereto.

2.14 "Disability" means (i) the Employee is determined to be totally and permanently disabled under any group long-term disability plan in which the Employee participates that is maintained by the Company or the Employee's Employer and in effect at that time, to the extent not inconsistent with applicable law, or (ii) the inability of the Employee, due to any medically determinable physical or mental impairment, to perform the essential functions of his or her job, with or without a reasonable accommodation, for (x) 120 days during any one employment year irrespective of whether such days are consecutive, or (y) such longer period, if any, that is available to the Employee under applicable law or Policies relating to the continuation of employee status after the onset of disability. In the event of any dispute under this Section, the Employee shall submit to a physical examination by a licensed physician mutually satisfactory to the Company and the Employee, the cost of such examination to be paid by the Company, and the determination of such physician shall be determinative.

2.15 "Effective Date" is defined in Section 1.02.

2.16 "Employee" means an individual who is designated as an employee of an Employer on the records of such Employer.

2.17 "Employer" means the Company and an Affiliate any of whose Employees are Participants in the Plan. The term "Employer" includes any successor to the Company or an Employer.

2.18 "ERISA" means the Employee Retirement Income Security Act of 1974, as amended. Reference to any provision of ERISA shall also include any successor provision and regulations and others applicable guidance or pronouncement of a federal regulatory agency and applicable case law relating to such Section of ERISA.

2.19 "Exchange Act" means the Securities Exchange Act of 1934, as amended.

2.20 "Good Reason " means, prior to or absent the occurrence of a Change in Control, a greater than 20% reduction in any of the Participant's base salary, target short-term cash incentive opportunity or value of regular annual long-term target incentive opportunity, the latter as determined by a third-party compensation consulting or accounting firm chosen by the Company and using generally accepted methodologies which may include annualizing prior year long-term incentive grants over more than one year and ignoring prior special retention or sign-on grants, other than a broad-based compensation reduction imposed across-the-board on executives at the vice president or higher level within the Company, and means, after the Change Date, any one or more of the following actions or omissions occurring during the Post-Change Period without the Participant's consent:

(i) a material reduction in the Participant's base salary or short-term/annual target cash incentive opportunity;

(ii) requiring the Participant to be principally based at any office or location, without the Participant's consent, more than 50 miles from the Participant's then-current principal location and also farther from the Participant's residence than the Participant's then-current principal office or location;

(iii) any material diminution in the Participant's authority, duties or responsibilities, but excluding a mere change in reporting relationship or title; or

(iv) any material breach of this Plan by any Employer or the Committee;

provided that, in order for there to be a Termination of Employment by a Participant for Good Reason, the Participant must notify the Participant's Employer of the event constituting such Good Reason within 90 days of the occurrence of such event, by a Notice of Termination. The Employer must have failed to cure the event constituting Good Reason within 30 days following receipt of the Notice of Termination and the Participant must terminate employment within five days after the lapse of the cure period if no cure is effected. A delay in the delivery of such Notice of Termination or in the Termination of Employment after the lapse of the cure period shall waive the right of the Participant under this Plan to terminate employment for Good Reason. For the avoidance of doubt, no material diminution of authority, duties or responsibilities shall be deemed to occur solely because the Company becomes a subsidiary of another corporation if the Participant's authority, duties and responsibilities to the Company or his Employer remain materially undiminished.

2.21 "Healthcare Assistance Multiple" means:

(a) 6X for a Termination Date occurring before or absent a Change Date, and

(b) 9X for a Termination Date occurring during the Post-Change Period.

2.22 "Including" means including without limitation.

2.23 "Involuntary Termination" means the Termination of Employment of a Participant (a) initiated by the Employer other than for Cause or Disability, and (b) for a reason other than death. A Termination of Employment initiated by the Participant for Good Reason shall also be an Involuntary Termination. For the avoidance of doubt, a Participant shall not have an Involuntary Termination of Employment if he or she (i) voluntarily resigns; (ii) voluntarily Retires; or (iii) has a Termination of Employment because of death, for Cause, or Disability.

2.24 "Notice of Termination" means a written notice given in accordance with Section 10.03 that sets forth (i) the specific termination provision in this Plan relied on by the party giving such notice, (ii) in reasonable detail the circumstances claimed to provide a basis for such Termination of Employment, and (iii) if the Termination Date is other than the date of receipt of such Notice of Termination (and is not determined under Section 2.35(a), (b), or (c)), the Termination Date.

2.25 "Participant" means an Employee who is selected by the Committee to participate in the Plan.

2.26 "Plan" means this Liquidia Technologies Executive Severance and Change in Control Plan as set forth herein and as from time to time amended.

2.27 "Plans" means plans, programs, or Policies of the Company or the Employer that employs a Participant.

2.28 "Policies" means policies, practices or procedures of the Company or the Employer that employs a Participant.

2.29 "Post-Change Period" means the period beginning on the Change Date and ending on the second anniversary of the Change Date.

2.30 "Pro-rata Annual Incentive" means, in respect of an Employer's fiscal year during which the Termination Date occurs, an amount equal to the product of (a) (i) in the case of a Termination Date before the Change Date, the actual annual incentive the Participant would have been paid if he or she remained employed on the payment date applicable to then-current employees based on actual performance, and (ii) in the case of a Termination Date on or after the Change Date, the Participant's Target Annual Incentive (determined as of the Termination Date) multiplied by (b) a fraction, the numerator of which equals the number of days from and including the first day of such fiscal year through and including the Termination Date, and the denominator of which equals 365.

2.31 "Retire" or "Retirement" means a voluntary Termination of Employment after attaining age 65 (or such other age at which the Company or Employer permits early retirement).

2.32 "Section 409A Deferred Compensation" means a deferral of compensation that is subject to (and not otherwise exempt from) the requirements of Section 409A of the Code.

2.33 "Severance Multiple" means:

(a) 6X for a Termination Date occurring before or absent a Change Date,

(b) 9X for a Termination Date occurring during the Post-Change Period.

2.34 "Target Annual Incentive", as of any date, means the amount equal to the product of a Participant's Base Salary multiplied by the percentage of such Base Salary to which such Participant would be entitled as an annual incentive, based on the terms in effect on such date under any annual incentive plans for the performance period for which the annual incentive is awarded if the performance goals established pursuant to such bonus plan were achieved at the 100% (target) level as of the end of the performance period, but disregarding any reduction in Target Annual Incentive that would constitute Good Reason.

2.35 "Termination Date" means the date of the receipt of the Notice of Termination by a Participant (if such Notice of Termination is given by the Company or the Participant's Employer) or by the Participant's Employer (if such Notice is given by the Participant), or any later date specified in the Notice of Termination but not more than 35 days after the giving of such Notice if the Notice of

Termination is given by the Participant for Good Reason and not more than 15 days after the giving of such Notice of Termination in all other cases, on which an Employee has a Termination of Employment; provided, however, that:

(a) if the Participant's employment is terminated by reason of death, the Termination Date shall be the date of the Participant's death;

(b) if the Participant's employment is terminated by reason of Disability, the Termination Date shall be the date assigned by the Company's Human Resource function;

(c) if no Notice of Termination is given, the Termination Date shall be the last date on which the Participant is at work; and

(d) if the Notice of Termination is for a Termination by the Participant for Good Reason, the Termination Date shall be the 35th day after the giving of the Notice of Termination if the Employer has not cured the Good Reason.

2.36 "Termination of Employment" means in respect of a Participant, a termination of employment as determined by the Committee; provided, however, that with respect to payment of any Section 409A Deferred Compensation, "Termination of Employment" shall mean "separation from service" within the meaning of Section 409A of the Code.

ARTICLE III
Participation and Eligibility for Benefits

3.01 Eligibility.

(a) Generally, Employees holding a position of vice president or a more senior position with the Company or an Affiliate are eligible to be selected by the Committee to participate in the Plan, subject to each such Employee fulfilling the requirements to participate as provided in Section 3.02. The Committee in its discretion also may designate selected Employees with a position below the vice president level to be eligible to participate in this Plan.

(b) Notwithstanding subsection (a), any individual who is (i) a party to an agreement ("Employment Agreement") between the individual and an Employer that provides for payments upon Termination of Employment (either before or after a Change in Control) or (ii) entitled to Section 409A Deferred Compensation paid in installments as severance after a separation from service pursuant to a broad-based severance plan; shall not be eligible to become a Participant in this Plan.

3.02 Participation. Except as provided in Section 3.01(b), each eligible Employee shall become a Participant in the Plan on the first date (not earlier than the Effective Date) on which he or she has been designated by the Committee as an Employee who is eligible to participate and he or she has delivered to the Company, within such timeframe as may be specified by the Committee, a signed Participation Agreement in substantially the form attached hereto as Appendix A.

3.03 Eligibility for Benefits. A Participant becomes eligible for benefits under the Plan if, prior to or absent a Change Date or during the Post-Change Period, the Participant has an Involuntary Termination or a Termination of Employment for Good Reason. For the avoidance of doubt, a Termination of Employment for Good Reason will be treated as having occurred during the Post-Change Period, notwithstanding the fact that actual separation from service occurs after the Post-Change Period has expired, if the Good Reason arises during the Post-Change Period, the Participant timely provides a Notice of Termination within 90 days of the occurrence of the event giving rise to such Good Reason, the Employer fails to cure the event constituting Good Reason within 30 days following receipt of the Notice of Termination and the Participant terminates employment within five days after the lapse of the cure period.

ARTICLE IV
Obligations of the Employer Upon Involuntary Termination Prior to or Absent a Change Date

4.01 Involuntary Termination. If a Participant has an Involuntary Termination, then unless Article V applies, the Employer's sole obligations to such Participant under the Plan shall be as follows:

(a) The Employer shall pay the Participant the following:

(i) all Accrued Obligations in a single lump sum payment within 15 days after the Termination Date or such earlier date as required by applicable law; and

(ii) subject to Section 9.01, an amount equal to the Base Salary determined as of the Termination Date, multiplied by the applicable Severance Multiple (the "Severance Payment"). The Severance Payment shall be paid in a single lump sum payment. The Severance Payment shall be made no more than 60 days after the Termination of Employment, provided the applicable revocation period for the release required by Section 9.01 has expired at that time, and subject to Section 10.11(c) and Section 10.11(e); and

(iii) subject to Section 9.01, the Participant's Pro-rata Annual Incentive for the Employer's fiscal year during which the Termination Date occurs, reduced (but not below zero) by the amount of any Annual Incentive previously paid to the Participant for such fiscal year (for example, if the Annual Incentive is paid quarterly and one or more quarterly payments have been made before the Termination Date); the Pro-rata Annual Incentive shall be paid at the same time and in the same form as the Annual Incentives for such fiscal year are paid to ongoing employees; but no later than two and one-half months after the last day of the fiscal year following the fiscal year in which the Termination Date occurs.

(b) The Employer shall provide for post-Termination of Employment nonqualified deferred compensation benefits, equity awards, and employee welfare benefits pursuant to the terms of the respective Plans and Policies under which such post-Termination of Employment benefits, awards and welfare benefits, if any, are provided, except as provided in (c) below.

(c) Subject to Section 9.01, if as of the Termination Date the Participant is participating in the Company's or the Employer's healthcare plan with respect to medical, vision, prescription and/or dental coverage and, as a result of the Termination of Employment, will be eligible for post-termination continuation coverage under Section 4980B of the Code ("COBRA"), then the Employer shall pay to the Participant, in a lump sum payment (the "Healthcare Assistance Payment"), an amount equal to (i) the excess of the monthly premium rate for such COBRA coverage for the Participant and his or her eligible dependents (measured as of the Termination of Employment) over the monthly premium rate payable by active employees (i.e., the non-Employer paid portion) for similar employer-provided coverage (measured as of the Termination of Employment), multiplied by (ii) the applicable Healthcare Assistance Multiple. The Healthcare Assistance Payment shall be made no more than 60 days after the Termination of Employment, provided the applicable revocation period for the release required by Section 9.01 has expired at that time, and subject to Section 10.11(c) and Section 10.11(e).

4.02 Termination for Any Other Reason. If a Participant has a Termination of Employment for any reason other than as described in Section 4.01 (including termination by the Employer for Cause, termination by the Employee other than for Good Reason, termination by the Employer or the Employee for Disability, Retirement, or termination on account of death), then unless Article V applies, the Employer's sole obligations to such Participant under the Plan shall be to pay the Participant all Accrued Obligations determined as of the Termination Date.

ARTICLE V
Obligations of the Employer on Involuntary Termination in the Post-Change Period

5.01 Application. If a Participant has an Involuntary Termination during the Post-Change Period a Participant shall be entitled to benefits under this Article V in lieu of, and not in addition to, benefits under Article IV. For the avoidance of doubt, a Termination of Employment for Good Reason will be treated as having occurred during the Post-Change Period, notwithstanding the fact that actual separation from service occurs after the Post-

Change Period has expired, if the Good Reason arises during the Post-Change Period, the Participant timely provides a Notice of Termination within 90 days of the occurrence of the event giving rise to such Good Reason, the Employer fails to cure the event constituting Good Reason within 30 days following receipt of the Notice of Termination and the Participant terminates employment within five days after the lapse of the cure period.

5.02 Involuntary Termination in the Post-Change Period. If a Participant has an Involuntary Termination during the Post-Change Period for which a Notice of Termination is timely given, then the Employer's sole obligations to such Participant under the Plan shall be as follows:

(a) The Employer shall pay the Participant the following:

(i) all Accrued Obligations in a single lump sum payment within 15 days after the Termination Date;

(ii) subject to Section 9.01, an amount equal to the sum of (a) Base Salary multiplied by the applicable Severance Multiple and (b) the Target Annual Incentive, each determined as of the Termination Date, ("Post-Change Severance Payment"); provided, however, that any reduction in the Participant's Base Salary or Target Annual Incentive that would qualify as Good Reason shall be disregarded for this purpose.

The Post-Change Severance Payment shall be paid no more than sixty days after the Termination of Employment, provided the applicable revocation period required for the release under Section 9.01 has expired at that time; and subject to Section 10.11(c) and Section 10.11(e).

(b) Post-Termination of Employment non-qualified deferred compensation benefits, equity awards, and employee welfare benefits shall be provided pursuant to the terms of the respective Plans and Policies under which such post-Termination of Employment benefits, awards and welfare benefits, if any, are provided, except as provided in (c) below.

(c) Subject to Section 9.01, if as of the Termination Date the Participant is participating in the Company's or the Employer's healthcare plan with respect to medical, vision, prescription and/or dental coverage and, as a result of the Termination of Employment, will be eligible for post-termination continuation coverage under Section 4980B of the Code ("COBRA"), then the Employer shall pay to the Participant, in a lump sum payment (the "Healthcare Assistance Payment"), an amount equal to (i) the excess of the monthly premium rate for such COBRA coverage for the Participant and his or her eligible dependents (measured as of the Termination of Employment) over the monthly premium rate payable by active employees (i.e., the non-Employer paid portion) for similar employer-provided coverage (measured as of the Termination of Employment), multiplied by (ii) the applicable Healthcare Assistance Multiple. The Healthcare Assistance Payment shall be made no more than 60 days after the Termination of Employment, provided the applicable revocation period for the release required by Section 9.01 has expired at that time, and subject to Section 10.11(c) and Section 10.11(e).

5.03 Termination on or After the Change Date for Any Other Reason. If a Participant has a Termination of Employment for which a Notice of Termination is given during the Post-Change Period, for any reason other than as described in Section 5.02 (including termination by the Employer for Cause, termination by the Employee other than for Good Reason, termination by the Employer or the Employee for Disability, Retirement, or termination on account of death), then the Employer's sole obligation to the Participant under this Plan shall be to pay the Participant all Accrued Obligations determined as of the Termination Date.

5.04 Limitation on Benefits.

(a) In the event it shall be determined that any payment or distribution by an Employer to or for the benefit of the Participant (whether paid or payable or distributed or distributable pursuant to the terms of this Plan or otherwise) (a "Payment") would be nondeductible by the Employer for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of amounts payable or distributable to or for the benefit of the Participant pursuant to this Plan ("Plan Payments") shall be reduced to the Reduced Amount if, and only if, by reason of such reduction, the net after-tax benefit received by the Participant, taking into account the applicable federal, state, local and foreign income, employment and other taxes, is greater than the net after-tax benefit that would be received by the Participant if no such reduction was made, taking into account the applicable federal, state, local and foreign income, employment and other taxes, including the excise tax imposed by Section 4999 of the Code. The "Reduced Amount" shall be an amount expressed in present value which maximizes the aggregate present value of Plan Payments without causing any Payment to be nondeductible by the Employer because of Section 280G of the Code. Such reduction shall be applied before any reduction of any other payments that are not Plan Payments unless the plan or agreement calling for such payments expressly provides to the contrary making specific reference to this Plan. Anything to the contrary notwithstanding, if the Reduced Amount under the Plan is zero and it is determined further that any Payment that is not a Plan Payment would nevertheless be nondeductible by the Employer for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of Payments which are not Plan Payments shall also be reduced (but not below zero) to an amount expressed in present value which maximizes the aggregate present value of Payments without causing any Payment to be nondeductible by the Employer because of Section 280G of the Code. For purposes of this Section, present value shall be determined in accordance with Section 280G(d)(4) of the Code.

(b) The Committee shall select a firm of certified public accountants of national standing, (the "Accounting Firm"), which may be the firm regularly auditing the financial statements of the Company or the Employer. The Accounting Firm shall make all determinations required to be made under this Section and shall provide detailed supporting calculations to the Company, the Employer and the Employee within 30 days after the Termination Date or such earlier time as is requested by the Company, and provide an opinion to the Participant that he or she has substantial authority not to report any Excise Tax on his or her Federal income tax return with respect to any Payments. Any such determination by the Accounting Firm shall be binding upon the Company, the Employer and the Participant. The Accounting Firm shall determine how much of the Plan Payment or Payments, as the case may be, shall be eliminated or reduced consistent with the requirements of this Section and any such reduction shall apply first to lump sum cash amounts payable pursuant to this Plan in the form of the Severance Payment or the Post-Change Severance Payment, as applicable. Subject to Sections 9.01, 10.11(c) and 10.11(e), within five business days thereafter, the Employer shall pay to or distribute to or for the benefit of the Participant such amounts as are then due to the Participant under this Plan.

(c) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Accounting Firm or the Company hereunder, it is possible that Plan Payments or Payments, as the case may be, will have been made by the Employer which should not have been made ("Overpayment") or that additional Plan Payments or Payments, as the case may be, which will not have been made by the Employer could have been made ("Underpayment"), in each case, consistent with the calculations required to be made hereunder. In the event that the Accounting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against the Employee which the Accounting Firm believes has a high probability of success determines that an Overpayment has been made, promptly on notice and demand the Participant shall repay to the Employer any such Overpayment paid or distributed by the Employer to or for the benefit of the Participant together with interest at the applicable Federal rate provided for in Section 7872(f)(2) of the Code; provided, however, that no such amount shall be payable by the Participant to the Employer if and to the extent

such payment would not either reduce the amount on which the Participant is subject to tax under Section 1 and Section 4999 of the Code or generate a refund of such taxes. In the event that the Accounting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Employer to or for the benefit of the Participant together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

ARTICLE VI
Administration

6.01 The Company and Committee.

(a) The Company shall have overall responsibility for the establishment, amendment and termination of the Plan. In carrying out its responsibilities hereunder, the Company shall act through the Committee. The Committee shall have, in its discretion, the responsibilities, duties, powers and authority, assigned to it in this Plan and any responsibilities, duties, powers and authority, under this Plan that are not specifically delegated to anyone else, including the following:

(i) to determine which individuals shall be selected as Participants.

(ii) to decide on questions concerning the Plan and the eligibility of any Participant to participate in the Plan, including whether the Participant should remain (or become) a Participant;

(iii) to determine the nature and timing of any Termination of Employment or the existence of Good Reason;

(iv) subject to any limitations under the Plan or applicable law, to make and enforce such rules and regulations and prescribe the use of such forms as it shall deem necessary for the efficient administration of the Plan;

(v) to require any person to furnish such information as it may request as a condition to receiving any benefit under the Plan;

(vi) to compute or have computed the amount of benefits that shall be payable to any person in accordance with the provisions of the Plan;

(vii) to construe and interpret the Plan and correct defects, supply omissions and reconcile inconsistencies in the Plan; and

(viii) to make all other decisions and determinations (including factual determinations) as the Committee may deem necessary or advisable in carrying out its duties and responsibilities or exercising its powers.

(b) Decisions of the Committee shall be final, conclusive and binding on all persons interested in the Plan, including Participants, beneficiaries and other persons claiming rights from or through a Participant.

6.02 Delegation of Committee Authority. The Committee may delegate to officers or employees of the Company, or committees thereof, the authority, subject to such terms as the Committee shall determine, to perform such administrative functions and exercise such administrative powers and authority, as the Committee in its discretion may determine. Such delegation may be revoked at any time.

6.03 Advisors and Agents of the Committee. The Committee may (i) authorize one or more of its members or an agent to execute or deliver any instrument, and make any payment on its behalf and (ii) utilize and cause the Company to pay for the services of associates and engage accountants, agents, clerks, legal counsel, record keepers and professional consultants (any of whom may also be serving an Employer or another Affiliate of the Company) to assist in the administration of this Plan or to render advice with regard to any responsibility under this Plan.

6.04 Records and Reports of the Committee. The Committee or its delegate shall maintain records and accounts relating to the administration of the Plan.

6.05 Limitation of Liability; Indemnification.

(a) The members of the Board and the Committee shall have no liability with respect to any action or omission made by them in good faith nor from any action made in reliance on (i) the advice or opinion of any accountant, legal counsel, medical adviser or other professional consultant or (ii) any resolutions of the Board certified by the secretary or assistant secretary of the Company. Each member of the Board, the Committee, and each employee to whom are delegated duties, responsibilities and authority with respect to the Plan shall be indemnified, defended, and held harmless by the Company and the Employers and their respective successors against all claims, liabilities, fines and penalties and all expenses (including but not limited to attorneys' fees) reasonably incurred by or imposed on such member or Participant that arise as a result of his actions or failure to act in connection with the operation and administration of the Plan, to the extent lawfully allowable and to the extent that such claim, liability, fine, penalty or expense is not paid for by liability insurance purchased by or paid for by the Company or an Employer. Notwithstanding the foregoing, the Company or an Employer shall not indemnify any person for any such amount incurred through any settlement or compromise of any action unless the Company or an Employer consents in writing to such settlement or compromise.

(b) The Company will continue to cover each Participant under its directors' and officers' insurance policy following the Termination Date for a period of time equal to the applicable statute of limitations. The Company shall indemnify and hold each Participant harmless to the fullest extent legally permitted or authorized by the Company's by-laws or, if greater, by the laws of the State of Delaware, as may be in effect from time to time, in respect of any liability, damage, cost or expense (including reasonable attorneys' fees) actually and reasonably incurred in connection with the defense of any claim, action, suit or proceeding to which the Participant is a party by reason of the Participant's being or having been an officer or director of the Company or any subsidiary or affiliate thereof, or the Participant's serving or having served at the request of such other entity as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, business organization, enterprise or other entity, including service with respect to employee benefit plans. Without limiting the generality of the foregoing, the Company shall pay the expenses (including reasonable attorneys' fees) actually and reasonably incurred in defending any such claim, action, suit or proceeding in advance of its final disposition, upon receipt of the Participant's undertaking to repay all amounts advanced unless it is ultimately determined that Executive is entitled to be indemnified under this Section.

6.06 Plan Expenses. Expenses relating to the Plan before its termination shall be paid from the general assets of the Company or an Employer. Any individual who serves as a member of the Committee shall receive no additional compensation for such service.

ARTICLE VII
Amendments; Termination

7.01 Amendment or Termination of the Plan. The Company by duly adopted resolution of the Committee shall have the sole right to alter, amend or terminate this Plan in whole or in part at any time and to terminate the participation of any Employee; provided, however, that:

(a) any such adverse amendment or termination shall be effective only as to those Participants, if any, who have consented to such amendment or termination or who have received from the Company at least 12 months' prior written notice ("Amendment Notice" or "Expiration Notice," respectively) of such adverse amendment or termination that sets forth the date of termination or amendment ("Amendment Date" or "Expiration Date"), and

(b) no such Amendment Notice or Expiration Notice shall be effective as to any Participant if a Change Date occurs before the Amendment or Expiration Date specified in the Amendment Notice or Expiration Notice. Any purported Plan termination or amendment in violation of this Section 7.01 shall be void and of no effect.

ARTICLE VIII
Claims Procedure

8.01 Filing a Claim.

(a) No claim shall be required for benefit due under the Plan. Any individual eligible for benefits under this Plan who believes he or she is entitled to additional benefits or who desires to clarify his or her right to future benefits under the Plan ("Claimant") may submit his application for benefits ("Claim") to the Committee (or to such other person or persons as may be designated by the Committee) in writing in such form as is provided or approved by the Committee. The Committee shall be the named fiduciary for purposes of this Plan.

(b) When a Claim has been filed properly, it shall be evaluated and the Claimant shall be notified of the approval or the denial of the Claim within 90 days after the receipt of such Claim. A Claimant shall be given a written notice in which the Claimant shall be advised as to whether the Claim is granted or denied, in whole or in part. If a Claim is denied, in whole or in part, the notice shall contain (i) the specific reasons for the denial, (ii) references to pertinent provisions of this Plan on which the denial is based, (iii) a description of any additional material or information necessary to perfect the Claim and an explanation of why such material or information is necessary, and (iv) a description of the Plan's review procedure and time limits applicable to such procedures, including a statement of the Claimant's right to bring a civil action under Section 502(a) of ERISA following a benefit claim denial on review.

8.02 Review of Claim Denial. If a Claim is denied, in whole or in part, or if a Claim is neither approved nor denied within the 90-day period specified Section 8.01(b), the Claimant shall have the right, within 60 days after receipt of such denial (or after such claim is deemed denied), to (i) request that the Committee (or such other person or persons as shall be designated in writing by the Committee) review the denial or the failure to approve or deny the Claim, (ii) review pertinent documents, and (iii) submit issues and comments in writing.

(a) Within 60 days after such request is received, the Committee shall complete its review and give the Claimant written notice of its decision.

(b) The Committee shall include in its notice to Claimant (i) the specific reasons for its decision; (ii) references to pertinent provisions of this Plan on which its decision is based; (iii) a statement that the Claimant is entitled to receive, upon request and free of charge, reasonable access to, and copies of, the Plan

and all documents, records and other information relevant to his or her claim for benefits; and (iv) a statement describing the Claimant 's right to bring an action under Section 502(a) of ERISA.

(c) A Claimant shall have no right to seek review of a denial of benefits, or to bring any action in any court to enforce a Claim, before his filing a Claim and exhausting his rights to review under Sections 8.01 and 8.02.

8.03 Dispute Resolution. The Company and the Participant agree to attempt to resolve any dispute between them quickly and fairly through informal, good faith negotiations. If a mutually satisfactory resolution is not reached by such good faith negotiations within 45 days, the Company and the Participant agree that the state courts of North Carolina and, if the jurisdictional prerequisites exist at the time, the federal courts in the State of North Carolina, shall have sole and exclusive jurisdiction to hear and determine any dispute or controversy arising under or relating to this Plan. The Company and each Participant irrevocably (i) consents to the exclusive jurisdiction and venue of the courts of North Carolina and federal courts in the State of North Carolina, in any and all actions arising

under or relating to this Plan (including Appendix A and Appendix B hereto), and (ii) waives any jurisdictional defenses (including personal jurisdiction and venue) to any such action. The Committee's interpretation of Plan provisions, and any findings of fact, including eligibility to participate and eligibility for benefits, are final, shall be given deference by any court of law and will not be subject to "de novo" review unless shown to be arbitrary and capricious. The Company and Participant will each separately pay its counsel fees and expenses unless otherwise determined by a court of competent jurisdiction.

ARTICLE IX
Release; No Mitigation; No Duplication of Benefits; Recoupment

9.01 Release and Other Conditions Required. Any and all amounts payable and benefits or additional rights provided pursuant to this Plan other than the Accrued Obligations and amounts provided under Section 4.01(b) and 5.02(b) shall only be payable if: (a) the Participant (or Participant's beneficiary in the event of Participant's death) timely delivers to the Employer and does not revoke a general waiver and release of claims in favor of the Company and related parties ("Company Parties") in substantially the form attached hereto as Appendix B, with such changes therein as may be necessary to make it valid and encompassing under applicable law, and the revocation period related to such general waiver and release has expired; (b) Participant resigns from any other positions Participant holds with the Company or an Affiliate, with such resignation to be effective no later than the Termination Date (or such other date as requested by the Company); (c) Participant returns all Company property; and (d) Participant complies with all post-termination obligations under the Confidentiality, Inventions and Non-Competition Agreement that Participant signed in connection with his or her employment with the Company or an Affiliate. The general waiver and release shall be executed and delivered (and the revocation period related thereto, if any, shall have lapsed without revocation having been made) within sixty (60) days following the Termination Date.

9.02 No Mitigation. No Participant shall have any duty to mitigate the amounts payable under this Plan by seeking or accepting new employment or self-employment following termination. Except as specifically otherwise provided in this Plan, all amounts payable pursuant to this Plan shall be paid without reduction regardless of any amounts of salary, compensation or other amounts that may be paid or payable to the Participant as the result of the Participant's employment by another employer or self-employment.

9.03 No Duplication of Benefits. Subject to Section 10.11(f), to the extent that a Participant shall have received severance payments or other severance benefits under any other Plan or agreement of the Company before receiving severance payments or other severance benefits pursuant to Article IV or Article V, the severance payments or other severance benefits under such other Plan or agreement shall reduce (but not below

zero) the corresponding severance payments or other severance benefits to which such Participant shall be entitled under Article IV or Article V. To the extent that a Participant accepts payments made pursuant to Article IV or Article V, he shall be deemed to have waived his right to receive a corresponding amount of future severance payments or other severance benefits under any other Plan or agreement of the Company. Payments and benefits provided under the Plan shall be in lieu of any termination or severance payments or benefits for which the Participant may be eligible under any of the Plans or Policy of the Company or an Affiliate or under the Worker Adjustment Retraining Notification Act of 1988 or any similar statute or regulation.

9.04 Recoupment Policy. The payments and benefits provided under this Plan shall be subject to recovery under any clawback, recovery or recoupment policy which the Company or an Employer may adopt from time to time, including without limitation the Company's existing recoupment policy and any policy which the Company or an Employer may be required to adopt under Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law and the rules and regulations of the U.S. Securities and Exchange Commission thereunder or the requirements of any national securities exchange on which the Company's common stock may be listed.

ARTICLE X
Miscellaneous

10.01 Participant Information. Each Participant shall notify the Committee of his home address and each change of home address. Each Participant shall also furnish the Committee with any other information and data that the Committee considers necessary for the proper administration of the Plan. The information provided by the Participant under this Section shall be binding on the Participant, his dependents and any beneficiary for all purposes of the Plan and the Committee shall be entitled to rely on any representations regarding personal facts made by a Participant, his dependents or beneficiary, unless such representations are known to be false.

10.02 Electronic Media. Under procedures authorized or approved by the Committee, any form for any notice, election, designation, or similar communication required or permitted to be given to or received from a Participant under this Plan may be communicated or made available to the Company or Participant in an electronic medium (including computer network, e-mail or voice response system) and any such communication to or from a Participant or Beneficiary through such electronic media shall be fully effective under this Plan for such purposes as such procedures shall prescribe. Any record of such communication retrieved from such electronic medium under its normal storage and retrieval parameters shall be effective as a fully authentic executed writing for all purposes of this Plan absent manifest error in the storage or retrieval process.

10.03 Notices. All notices and other communications under this Plan shall be in writing and delivered by hand, by nationally recognized delivery service that promises overnight delivery, or by first-class registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to Participant, at his most recent home address on file with the Company.

If to the Company or any other Employer,

Florina Gordon
P.O. Box 110085
Research Triangle Park
North Carolina, 27709

or to such other address as either party shall have furnished to the other in writing. Notice and communications

shall be effective the day of receipt if delivered by hand or electronically, the second business day after deposit with an overnight delivery service if so deposited, or the fifth business day after mailing in the case of first class registered or certified mail.

10.04 No Employment Contract. The existence of this Plan shall not confer any legal or other rights upon any Participant to employment or continuation of employment. Employees are employees at will. The Company and each Employer reserve the right to terminate any Participant with or without cause at any time, notwithstanding the provisions of this Plan.

10.05 Headings. The headings in this Plan are for convenience of reference and shall not be given substantive effect.

10.06 Construction. Any masculine pronoun shall also mean the corresponding female or neuter pronoun, as the context requires. The singular and plural forms of any term used in this Plan shall be interchangeable, as the context requires.

10.07 Joint and Several Liability. In the event that any Employer incurs any obligation to a Participant pursuant to this Plan, such Employer, the Company and each Affiliate, if any, of which such Employer is a subsidiary shall be jointly and severally liable with such Employer for such obligation.

10.08 Successors. This Plan shall inure to the benefit of and be binding upon the Company, each Employer and their respective successors and assigns. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of any Employer to assume expressly and agree to comply with this Plan in the same manner and to the same extent that the Employer would be required to comply with it if no such succession had taken place. Failure to require such assumption will be a material breach of this Plan. Any successor to the business or assets of any Employer that assumes or agrees to perform this Plan by operation of law, contract, or otherwise shall be jointly and severally liable with the Employer under this Plan as if such successor were the Employer.

10.09 Payments to Beneficiary. If a Participant dies after becoming entitled to payments under Section 4.01 or 5.02 but before receiving all amounts to which he is entitled under this Plan, then, subject to Section 9.01, such remaining amounts shall be paid to his or her estate.

10.10 Non-Alienation of Benefits. Benefits payable under this Plan shall not be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance, charge, garnishment, execution or levy of any kind, either voluntary or involuntary, before actually being received by the Participant, and any such attempt to dispose of any right to benefits payable under this Plan shall be void.

10.11 Tax Matters.

(a) An Employer may withhold from any amounts payable under this Plan or from any other amount due a Participant any federal, state, local and other income, employment and other taxes that are required to be withheld pursuant to any applicable law or regulation.

(b) The intent of the Employers is that payments and benefits under this Plan are exempt from or comply with Section 409A of the Code and, accordingly, to the maximum extent permitted, this Plan shall be interpreted in accordance with that intent. To the extent that any provision hereof is modified in order to comply with Section 409A of the Code, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to the Participant and the Employer of the applicable provision without violating the provisions of Section 409A of the Code. In no event whatsoever

shall the Company or any Employer be liable for any additional tax, interest or penalty that may be imposed on a Participant or Employee by Section 409A of the Code or damages for failing to comply with Section 409A of the Code.

(c) If a Participant is deemed on the Termination Date to be a "specified employee" within the meaning of that term under Section 409A(a)(2)(B) of the Code, then with regard to any payment or the provision of any benefit that is considered "nonqualified deferred compensation" under Section 409A of the Code payable on account of a "separation from service" and which becomes payable under the terms of the Plan within six months following such separation from service, then, to the extent required by Section 409A of the Code, such payment or benefit shall not be made or provided until the date which is the earlier of (i) the day after the expiration of the six-month period measured from the date of such "separation from service" of the Employee, and (ii) the date of the Employee's death. Upon the expiration of the six-month delay period, all payments and benefits delayed pursuant to this provision (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) shall be paid or reimbursed to the Employee in a lump sum without interest, and all remaining payments and benefits due under this Plan shall be paid or provided in accordance with the normal payment dates specified for them herein.

(d) To the extent that reimbursements or other in-kind benefits under this Plan constitute "nonqualified deferred compensation" for purposes of Section 409A of the Code, (A) all expenses or other reimbursements hereunder shall be made on before to the last day of the taxable year following the taxable year in which such expenses were incurred by the Participant, (B) any right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, and (C) no such reimbursement, expenses eligible for reimbursement, or in-kind benefits provided in any taxable year shall in any way affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year.

(e) For purposes of Section 409A of the Code, the Participant's right to receive installment payments pursuant to this Plan shall be treated as a right to receive a series of separate and distinct payments. Whenever this Plan specifies a payment period with reference to a number of days, the actual date of payment within the specified period shall be within the sole discretion of the Employer and the Participant shall have no right to directly or indirectly specify the date of payment; provided that if the timing of the payment is contingent on the lapse or expiration of the revocation period for the release required under Section 9.01 and such revocation period could, as of the Termination Date, lapse either in the same year as the Termination Date or in the following year, the actual date of payment within the specified period shall be in such following year.

(f) Notwithstanding any other provision of this Plan to the contrary, in no event shall any payment or benefit under this Plan that constitutes "nonqualified deferred compensation" for purposes of Section 409A of the Code be subject to offset by any other amount unless such offset would not trigger additional taxes and penalties under Section 409A of the Code.

10.12 Governing Law. The provisions of this Plan shall be governed, construed and administered in accordance with the laws of the State of North Carolina, other than its laws respecting choice of law, except to the extent preempted by federal law, including ERISA.

10.13 Severability. If any one or more Articles, Sections or other portions of this Plan are declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity shall not serve to invalidate any Article, Section or other portion not so declared to be unlawful or invalid; provided that if the release required under Section 10.01 is declared to be unlawful or unenforceable, then no payments shall be made the payment of which is subject to such release, and the Participant shall forthwith restore to the Employer any payments previously made that were subject to such release. Any Article, Section or other portion so declared to

be unlawful or invalid shall be construed so as to effectuate the terms of such Article, Section or other portion to the fullest extent possible while remaining lawful and valid.

ARTICLE XI
ERISA Compliance Provisions

11.01 Summary Plan Description Provisions

(a) *General Information*. This document also serves as the summary plan description for the Plan. The following is additional information about the Plan.

Plan sponsor:	Liquidia Technologies, Inc. EIN: 20-1926605 P.O. Box 110085 Research Triangle Park North Carolina, 27709 Tel: 919-328-4428
Plan name:	Liquidia Technologies Executive Severance and Change in Control Plan
Plan number:	502
Type of plan:	Severance pay plan that is a "welfare benefit plan" under ERISA.
Funding:	Paid from the Company's general assets.
Plan year:	Calendar year
Plan Administrator:	Compensation Committee of the Board of Directors of Liquidia Technologies, Inc. P.O. Box 110085 Research Triangle Park North Carolina, 27709 Tel: (919) 328-4428
Agent for service of legal process:	If you have to bring legal action against the Plan for any reason, legal process can be served on the Plan Administrator at P.O. Box 110085, Research Triangle Park, North Carolina, 27709.

(b) *Statement of ERISA Rights*. As a Participant in the Plan, you are entitled to certain rights and protections under the ERISA. ERISA provides that all Plan Participants shall be entitled to:

(i) *Receive Information About Your Plan and Benefits*

(1) Examine, without charge, at the Plan Administrator's office and at other specified locations, such as worksites, all documents governing the Plan, including a copy of the latest annual report (Form 5500 Series) filed by the Plan with the U.S. Department of Labor and available at the Public Disclosure Room of the Employee Benefits Security Administration.

(2) Obtain, upon written request to the Plan Administrator, copies of documents governing the operation of the Plan, including copies of the latest annual report (Form 5500 Series) and updated summary plan description. The administrator may make a reasonable charge for the copies.

(3) Receive a summary of the Plan's annual financial report, if applicable. The Plan Administrator is required by law to furnish each Participant with a copy of this summary annual report.

(ii) *Prudent Actions by Plan Fiduciaries*

In addition to creating rights for Plan Participants, ERISA imposes duties upon the people who are responsible for the operation of the employee benefit plan. The people who operate your plan, called "fiduciaries" of the Plan, have a duty to do so prudently and in the interest of you and other Plan Participants and beneficiaries. No one, including your employer, or any other person, may fire you or otherwise discriminate against you in any way to prevent you from obtaining a welfare benefit or exercising your rights under ERISA.

(iii) *Enforce Your Rights*

If your claim for a welfare benefit is denied or ignored, in whole or in part, you have a right to know why this was done, to obtain copies of documents relating to the decision without charge, and to appeal any denial, all within certain time schedules.

Under ERISA, there are steps you can take to enforce the above rights. For instance, if you request a copy of Plan documents or the latest annual report from the Plan and do not receive them within 30 days, you may file suit in a Federal court. In such a case, the court may require the Plan Administrator to provide the materials and pay you up to $110 a day until you receive the materials, unless the materials were not sent because of reasons beyond the control of the administrator.

If you have a claim for benefits, which is denied or ignored, in whole or in part, you may file suit in a state or Federal court. If you are discriminated against for asserting your rights, you may seek assistance from the U.S. Department of Labor, or you may file suit in a Federal court. The court will decide who should pay court costs and legal fees. If you are successful the court may order the person you have sued to pay these costs and fees. If you lose, the court may order you to pay these costs and fees, for example, if it finds your claim is frivolous.

(iv) *Assistance with Your Questions*

If you have any questions about your Plan, you should contact the Plan Administrator. If you have any questions about this statement or about your rights under ERISA or if you need assistance in obtaining documents from the Plan Administrator, you should contact the nearest office of the Employee Benefits Security Administration, U.S. Department of Labor, listed in your telephone directory or the Division of Technical Assistance and Inquiries, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue N.W., Washington, D.C. 20210. You may also obtain certain publications about your rights and responsibilities under ERISA by calling the publications hotline of the Employee Benefits Security Administration.

Adopted: March 3, 2017
Compensation Committee of the Board of Directors
Liquidia Technologies, Inc.

APPENDIX A
PARTICIPATION AGREEMENT

This PARTICIPATION AGREEMENT (this "Agreement" or this "Restrictive Covenants Agreement") is entered into as of , 20 , between Liquidia Technologies, Inc. (the "Company") and (the "Executive") (jointly the "Parties") pursuant to which the Executive accepts participation in the Liquidia Technologies Executive Severance and Change in Control Plan (the "Severance Plan") subject to the terms and conditions thereof as amended from time to time.

REASONS FOR THIS AGREEMENT: During Executive's relationship with the Company, Executive has learned, will learn, or has or will have access to, trade secrets and important proprietary and confidential information related to the operations and business of Liquidia Technologies, Inc. and its subsidiaries and affiliates (collectively, the "Company's Business").

Executive acknowledges executing and being subject to the terms of the Confidentiality, Invention and Non-Competition Agreement (the "Restrictive Covenants Agreement"). [*To the extent a participant has not previously entered into the Confidentiality, Invention and Non-Competition Agreement, the participant will need to execute it in order to participate in plan.*] In consideration of employment or continued employment, participation in the Severance Plan and other valuable consideration, the receipt and sufficiency of which are acknowledged, Executive agrees to continue to be subject to, and abide by, such Restrictive Covenants Agreement.

IN WITNESS WHEREOF, the Company and the Executive have executed this Participation Agreement as of the date first written above.

PARTICIPANT:

_____ _____
(signature)

LIQUIDIA TECHNOLOGIES,INC:

By: _____

_____
(print name)
Its: _____

APPENDIX B
GENERAL RELEASE AND WAIVER

1. I, , in consideration of and subject to the performance by Liquidia Technologies, Inc. (together with its Affiliates, the the "Company Parties"), of its obligations under the Liquidia Technologies Executive Severance and Change in Control Plan effective as of [ ], as amended from time to time before the date hereof (the "Plan"), do hereby release and forever discharge as of the date hereof the Company Parties and their respective affiliates, subsidiaries and direct or indirect parent entities and all present, former and future shareholders, directors, officers, agents, representatives, employees, successors and assigns of the Company and/or its respective affiliates, subsidiaries and direct or indirect parent entities (collectively, the "Released Parties") to the extent provided below (this "General Release"). The Released Parties are intended to be third-party beneficiaries of this General Release, and this General Release may be enforced by each of them in accordance with the terms hereof in respect of the rights granted to such Released Parties hereunder. Terms used herein but not otherwise defined shall have the meanings given to them in the Plan.

2. I understand that any payments or benefits paid or granted to me under Section 4.01 or 5.02 of the Plan (other than the Accrued Obligations) represent, in part, consideration for signing this General Release and are not salary, wages or benefits to which I was already entitled. I understand and agree that I will not receive certain of the payments and benefits specified in the Plan unless I execute this General Release and do not revoke this General Release within the time period permitted hereafter. Such payments and benefits will not be considered compensation for purposes of any employee benefit plan, program, policy or arrangement maintained or hereafter established by the Company or its Affiliates.

3. Except as provided in paragraphs 4, 5, and 11 below and except for the provisions of the Plan which expressly survive the termination of my employment with the Company, I knowingly and voluntarily (for myself, my heirs, executors, administrators and assigns) release and forever discharge the Company and the other Released Parties from any and all claims, suits, controversies, actions, causes of action, cross-claims, counter-claims, demands, debts, compensatory damages, liquidated damages, punitive or exemplary damages, other damages, claims for costs and attorneys' fees, or liabilities of any nature whatsoever in law and in equity, both past and present (through the date that this General Release becomes effective and enforceable) and whether known or unknown, suspected, or claimed against the Company or any of the Released Parties which I, my spouse, or any of my heirs, executors, administrators or assigns, may have, which arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to or on the date you sign this Agreement, including, but not limited to (all of the following collectively referred to herein as the "Claims"):

(a) any and all claims that in any way result from, or relate to, Executive's hire, employment with or separation from employment with the Company Parties, whether pursuant to federal, state or local law, statute, regulation, ordinance, executive order or common law including, but not limited to, wrongful discharge of employment, constructive discharge from employment, termination in violation of public policy, discrimination, harassment, retaliation, breach of contract, both express and implied, breach of a covenant of good faith and fair dealing, both express and implied; promissory estoppel, negligent or intentional infliction of emotional distress, negligent or intentional misrepresentation, negligent or intentional interference with contract or prospective economic advantage, unfair business practices, defamation, libel, slander, negligence, personal injury, assault, battery, invasion of privacy, false imprisonment, and conversion, including costs and attorneys' fees;

(b) any and all claims for violation of any federal, state or municipal statute, including, but not limited to, Title VII of the Civil Rights Act of 1964, as amended; the Civil Rights Act of 1991; the Age Discrimination in Employment Act of 1967, as amended (including the Older Workers Benefit Protection Act); the Equal Pay Act of 1963, as amended; the Americans with Disabilities Act of 1990; the Family and Medical Leave

Act of 1993; the Worker Adjustment Retraining and Notification Act; the Employee Retirement Income Security Act of 1974; any applicable Executive Order Programs; the Fair Labor Standards Act; the National Labor Relations Act ("NLRA"); the North Carolina Retaliatory Employment Discrimination Act; the North Carolina Persons with Disabilities Protection Act; the North Carolina Equal Employment Practices; and any other statute that pertains or relates to, or otherwise touches upon, the employment relationship between the Company Parties and Executive.

4. I agree that this General Release does not waive or release any rights or claims that I may have under the Age Discrimination in Employment Act of 1967, as amended ("ADEA") which arise after the date I execute this General Release and does not extend to any claims that, by statute, may not be waived. I acknowledge and agree that my separation from employment with the Company Parties in compliance with the terms of the Plan shall not serve as the basis for any claim or action (including, without limitation, any claim under the ADEA).

5. I agree that I hereby waive all rights to sue or obtain equitable, remedial or punitive relief from any or all Released Parties of any kind whatsoever in respect of any Claim, including, without limitation, reinstatement, back pay, front pay, and any form of injunctive relief. Notwithstanding the above, I further acknowledge that I am not waiving and am not being required to waive any right that cannot be waived under law, including the right to file a claim for workers' compensation benefits or unemployment insurance benefits; provided, however, that I waive, to the extent permitted by law, any right or ability to be a class or collective action representative or to otherwise participate in any putative or certified class, collective or multi-party action or proceeding based on any such claims in which any of the Company Parties is a party. Additionally, I am not waiving (i) any right to the Accrued Obligations or any severance benefits to which I am entitled under the Plan, (ii) any claim relating to directors' and officers' liability insurance coverage or any right of indemnification under the Company's organizational documents or otherwise, (iii) my rights as an equity or security holder in the Company or its Affiliates, (iv) my rights under any equity awards that survive termination of employment; or (v) my rights under any retirement plan that is "qualified" under Section 401(a) of the Internal Revenue Code of 1986. Furthermore, nothing in this General Release prevents me from filing a charge or complaint, reporting to, cooperating with, communicating with, or participating in any proceeding before the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, the United States Department of Labor, the National Labor Relations Board, or other similar state or local agency (the "Government Agencies"), or from exercising any rights pursuant to Section 7 of the NLRA, or from taking any action protected under the whistleblower provisions of any federal securities law ("Protected Activities"), none of which activities shall constitute a breach of the release, non-disparagement or confidentiality clauses of this General Release. I understand that, in connection with such Protected Activity, I am permitted to disclose documents or other information as permitted by law, but I shall take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute confidential or proprietary information under my Confidentiality, Invention and Non-Competition Agreement to any parties other than the Government Agencies, and further understand that "Protected Activity" does not include the disclosure of any attorney-client privileged communications with the Company Parties, and that any such disclosure without the written consent of the Company Parties shall constitute a material breach of this General Release.

6. In signing this General Release, I acknowledge and intend that it shall be effective as a bar to each and every one of the Claims hereinabove mentioned or implied, except those described in Section 5 above. I expressly consent that this General Release shall be given full force and effect according to each and all of its express terms and provisions, including those relating to unknown and unsuspected Claims (notwithstanding any state or local statute that expressly limits the effectiveness of a general release of unknown, unsuspected and unanticipated Claims), if any, as well as those relating to any other Claims hereinabove mentioned or implied. I acknowledge and agree that this waiver is an essential and material term of this General Release and that without

such waiver I would not have become a Participant in the Plan. I further agree that in the event I should bring a Claim seeking damages against the Company, or in the event I should seek to recover against the Company in any Claim brought by a governmental agency on my behalf, this General Release shall serve as a complete defense to such Claims to the maximum extent permitted by law.

7. I agree that neither this General Release, nor the furnishing of the consideration for this General Release, shall be deemed or construed at any time to be an admission by the Company, any Released Party or myself of any improper or unlawful conduct.

8. I agree not to disparage the Company Parties, and the Company Parties' directors, managers, partners, employees, and agents, in any manner likely to be harmful to them or their business, business reputation or personal reputation, provided that I may respond accurately and fully to any question, inquiry or request for information when required by legal process and otherwise engage in a Protected Activity.

9. I agree that this General Release and the Plan are confidential and agree not to disclose any information regarding the terms of this General Release or the Plan, except to my immediate family and any tax, legal or other counsel that I have consulted regarding the meaning or effect hereof or to a successor employer respecting the terms of any restrictive covenants to which I may be subject, or as required by law, and I will instruct each of the foregoing not to further disclose the same to anyone.

10. Any non-disclosure provision in this General Release does not prohibit or restrict me (or my attorney) from responding to any inquiry about this General Release or its underlying facts and circumstances by the Securities and Exchange Commission (SEC), the Financial Industry Regulatory Authority (FINRA), any other securities regulatory organization or any governmental entity.

11. I represent that I am not aware of any claim by me other than the claims that are released by this General Release. I acknowledge that I may hereafter discover claims or facts in addition to or different than those which I now know or believe to exist with respect to the subject matter of the release set forth in paragraph 3 above and which, if known or suspected at the time of entering into this General Release, may have materially affected this General Release and my decision to enter into it. I represent and warrant that I have never suffered an on the job or occupational injury or incurred any leave, wage or overtime claims, whether pursuant to the Fair Labor Standards Act, Family Medical Leave Act, or otherwise, during my employment, or in the alternative that any such claims have been resolved to my complete satisfaction, and as such, no such claims by me or on my behalf exist as of the date of this Agreement. I further represent that I have been provided by the Company Parties all wages, severance, vacation, benefits, commissions, bonuses, expense reimbursements, or other amounts owed to me by the Company Parties, other than the Accrued Obligations and the payments or benefits paid or granted to me under Section 4.01 or 5.02 of the Plan.

12. Notwithstanding anything in this General Release to the contrary, this General Release shall not relinquish, diminish, or in any way affect any rights or claims arising out of any breach by the Company or by any Released Party of the Plan after the date hereof.

13. The Parties understand and acknowledge that this General Release constitutes a compromise and settlement of actual or potential disputed claims. No action taken by the Parties hereto, or either of them, either previously or in connection with this General Release shall be deemed or construed to be:

(a) an admission of the truth or falsity of any claims made or any potential claims; or

(b) an acknowledgment or admission by either Party of any fault or liability whatsoever to the other Party or to any third party.

14. I waive any claim to reinstatement or re-employment with the Released Parties and agree not to bring any claim based upon the failure or refusal of the Released Parties to employ me hereafter. If I seek employment or become employed with the Released Parties (knowingly or unknowingly), this General Release shall conclusively be deemed the sole and exclusive reason for denying such application for employment with the Released Parties and/or the basis for my discharge if hired.

15. In entering into this General Release, neither Party has relied upon any representations or statements made by the other Party hereto which are not specifically set forth in this General Release.

16. The language in all parts of this Agreement will be construed, in all cases, according to its fair meaning, and not for or against either Party hereto. The Parties acknowledge that each Party and its counsel have reviewed and revised this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party will not be employed in the interpretation of this Agreement. The captions of the Paragraphs of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any Paragraph of this Agreement.

17. Whenever possible, each provision of this General Release shall be interpreted in, such manner as to be effective and valid under applicable law, but if any provision of this General Release is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision or any other jurisdiction, but this General Release shall be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

18. BY SIGNING THIS GENERAL RELEASE, I REPRESENT AND AGREE THAT:

(a) I HAVE READ IT CAREFULLY; AND I UNDERSTAND ALL OF ITS TERMS AND KNOW THAT I AM GIVING UP IMPORTANT RIGHTS, INCLUDING BUT NOT LIMITED TO, RIGHTS UNDER THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967, AS AMENDED, TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, AS AMENDED; THE EQUAL PAY ACT OF 1963, THE AMERICANS WITH DISABILITIES ACT OF 1990; AND THE EMPLOYEE RETIREMENT INCOME SECURITY ACT OF 1974, AS AMENDED;

(b) I VOLUNTARILY CONSENT TO EVERYTHING IN IT;

(c) THE CONSIDERATION GIVEN TO ME FOR THIS GENERAL RELEASE IS IN ADDITION TO ANYTHING OF VALUE TO WHICH I WAS ALREADY ENTITLED;

(d) I HAVE BEEN ADVISED TO CONSULT WITH AN ATTORNEY BEFORE EXECUTING IT AND I HAVE DONE SO OR, AFTER CAREFUL READING AND CONSIDERATION, I HAVE CHOSEN NOT TO DO SO OF MY OWN VOLITION;

(e) I HAVE HAD [21 DAYS/45 DAYS] FROM THE DATE OF MY RECEIPT OF THIS RELEASE TO CONSIDER IT, AND THE CHANGES MADE SINCE MY RECEIPT OF THIS RELEASE ARE NOT MATERIAL OR WERE MADE AT MY REQUEST AND WILL NOT RESTART THE REQUIRED [21/45]-DAY PERIOD;

(f) I UNDERSTAND THAT I HAVE SEVEN (7) DAYS AFTER THE EXECUTION OF THIS RELEASE TO REVOKE IT AND THAT THIS RELEASE SHALL NOT BECOME EFFECTIVE OR ENFORCEABLE UNTIL THE REVOCATION PERIOD HAS EXPIRED;

(g) I HAVE SIGNED THIS GENERAL RELEASE KNOWINGLY AND VOLUNTARILY AND WITH THE ADVICE OF ANY COUNSEL RETAINED TO ADVISE ME WITH RESPECT TO IT; AND

(h) I AGREE THAT THE PROVISIONS OF THIS GENERAL RELEASE MAY NOT BE AMENDED, WAIVED, CHANGED OR MODIFIED EXCEPT BY AN INSTRUMENT IN WRITING SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE COMPANY AND BY ME.

SIGNED: _____ DATED: _____

Participant

LEASE AGREEMENT

THIS LEASE AGREEMENT (the "Lease" or "Agreement") entered into as of the Execution Date between the Landlord and the Tenant. Landlord, in consideration of the rents and covenants to be kept and performed by the Tenant, leases to the Tenant that certain property and improvements, more specifically described below, upon the following terms and conditions:

1. PREMISES.

1.1. **Premises**. The property leased is the Premises located in the Building as described in the Term Sheet. Unless specifically provided to the contrary elsewhere in this Lease, the term "Premises" shall consist of only that interior space located within the perimeter described on ***Schedule A*** (including the interior portions of the wall surfaces, ceiling and floor) and shall not include the roof or any exterior wall surfaces (other than exterior glass). The term "Building" shall include the parcel of real property on which the improvements are located and all improvements thereon (including, but not limited to Common Areas), whether leased to Tenant or not.

1.2. **Common Area**. The Premises are leased together with a non-exclusive license to use, in common with the Landlord and other tenants in the Building, those common areas necessary for ingress and egress, including lobbies, restrooms, halls, stairways, drives, sidewalks and parking areas, patio area near the rear of the Premises, along with any other areas which Landlord may, but is not obligated to, designate for common use by tenants (the "Common Areas"). Unless specifically provided elsewhere in this Agreement, Tenant shall have no designated parking spaces and shall observe restricted parking areas designated by Landlord. Except for the venting contemplated by the approved Additional Tenant Improvements, Landlord does not grant any easement for light, air or view.

2. TERM.

2.1. **Duration**. This Agreement shall be effective as of the Execution Date and, subject to a prior termination as provided in this Agreement, the Lease shall remain in effect for the Term.

2.2. **Delayed Possession**. Except as otherwise provided in this Agreement, Landlord shall deliver possession of the Premises to Tenant on the Commencement Date. Except as otherwise provided in ***Schedule E***, any delay in having the Premises available for occupancy by the Target Commencement Date or the Outside Commencement Date shall not affect the validity of this Lease or Tenant's obligations under the Lease, nor shall Landlord be subject to any liability for that delay. Landlord and Tenant agree to confirm the actual Commencement Date and Expiration Date, in writing, prior to Tenant's occupancy.

2.3. **Early Occupation**. Provided it does not cause undue interference or delay in Landlord's completion of the Additional Tenant Improvements, Tenant may (prior to the Commencement Date and without incurring any liability for payment of Rent), place and install its personal property, equipment and trade fixtures, in any part of the Premises, at Tenant's sole risk and expense. All other provisions of the Lease (including, but not limited to, ***Sections 3.2 & 3.3***) shall be applicable to this early occupation by Tenant. This early occupation shall not be deemed "taking possession of the Premises" for purposes of ***Section 3.1.1***.

3. CONDITION AND USE OF PREMISES.

3.1. **Condition of Premises**.

3.1.1. Neither the Landlord, nor its agents or the Managing Agent, have made any representations with respect to the Premises or Building that are not set forth in the Lease. Except as provided in ***Section 3.1.2*** and for latent defects not reasonably discoverable in the walk through described below, taking possession of the Premises by the Tenant shall be conclusive evidence, as against Tenant, that Tenant accepts the same "as is" and that the Premises, the Building and the Common Areas were in good and satisfactory condition at the time of taking possession and suitable for the Tenant's Permitted Use. Notwithstanding the preceding to the contrary, Landlord represents that to the best of its knowledge, as of the Commencement Date, the Building (including the Premises) and Common Areas comply with all applicable legal requirements of any governmental or quasi-governmental body.

3.1.2. Prior to delivery of the Premises to Tenant, Landlord and Tenant shall conduct a walk through of the Premises for the purpose of assuring that all construction is according to plans and specifications, that all utilities are functional, and that the Premises are in good condition. Any deficiencies observed in the walk through shall be noted in writing and signed by both parties. These noted deficiencies shall be cured by Landlord within thirty (30) days of the walk through.

3.1.3. Except for Hazardous Substances (as later defined) used by other tenants in connection with their operations at the Building, which Landlord believes is in compliance with all Environmental Laws (as later defined), Landlord represents that: (i) it has not brought or permitted any Hazardous Substances to be brought onto the Premises or Building; and (ii) to the best of its knowledge, as of the Execution Date, neither the Premises nor the Building contains any Hazardous Substances or is in violation of any Environmental Laws.

3.2. **Use of Premises**. The Premises shall be used and occupied by Tenant for Tenant's Permitted Use and for no other purpose. Tenant may not use the Premises or any portion thereof for any illegal or unlawful purpose and may not cause or permit a nuisance to be created or maintained on the Premises including, without limitation, noises of such a level as to disturb others in the Building. Tenant's use of the Premises and Common Areas shall comply with the Rules & Regulations (as defined below), if any, which apply to the Premises. Tenant's use may not increase the fire insurance premiums on the Building or make that insurance unavailable to Landlord. In no event shall Tenant have more than the Permitted" Employees Per Square Foot employed at the Premises.

3.3. **Compliance with Regulations**. Tenant shall materially comply with all legal requirements of any governmental or quasi-governmental body including City, County, State or Federal boards having jurisdiction respecting any operation conducted or any equipment installations or other property placed upon, in or about the Premises by it. Tenant shall immediately, on discovery of any unlawful use within the Premises, take action to halt that activity. Except as provided in ***Section 3.4*** or as specifically assigned to Tenant above, Landlord shall comply with all legal requirements of any governmental or quasi-governmental body including City, County, State or Federal boards having jurisdiction respecting the Building and the Common Areas.

3.4. **ADA Compliance**. Landlord represents and warrants that, to the best of its knowledge, as of the Commencement Date, the Premises, the Common Areas, and the Building comply with all applicable laws and regulations dealing with access by individuals with disabilities, including Title III of The Americans with Disabilities Act, Public Law 101-336 (July, 1990) as revised from time to time (the "ADA"). To the extent the Premises do not subsequently comply with the ADA because of post-Commencement Date changes in those laws or related regulations and such non-compliance relates to or arises solely out of Tenant's particular use, or operations, or the Tenant Improvements (whether constructed prior to or after the Commencement Date) or any Alterations (as defined below), Tenant shall, at its sole expense, take all reasonable steps to modify the Premises to comply with the ADA. Otherwise, the Landlord shall, subject to the provisions of ***Section 4.3***, be responsible for keeping the Premises, the Common Areas, and the Building (exclusive of Tenant Improvements and Alterations) in compliance with the ADA.

4. RENT.

4.1. **Base Rent**. Commencing on the Commencement Date and continuing for the remainder of the Term, Tenant shall pay to Landlord the Base Rent set out in ***Schedule D***. Installment Amounts/Payment Amounts (as reflected in ***Schedule D***), as well as payments of Additional Rent (defined below) shall be payable without previous demand and without offset or deduction, in advance, on or before the first day of each month. Tenant shall make such payments by direct deposit to the bank account identified, in writing, by Landlord to Tenant prior to the first payment of Base Rent is due or as otherwise may be designated, from time to time, in writing, by Landlord to Tenant. If the Commencement Date is a day other than the first day of the month or if the Term ends on a day other than the last day of the month, Base Rent for any partial month of the Term shall be pro rated on a per diem basis.

4.2. **Stamp, Use, Sales Tax Adjustment**. Should any governmental authority having jurisdiction over the Premises declare or otherwise assess against Landlord any tax on Tenant's rents, lease, or leasehold whether designated as a stamp tax, sales tax, ad valorem tax, use tax or otherwise (other than income taxes), then all taxes so charged shall be the Tenant's obligation and shall be paid by Tenant directly to the taxing authority or shall be paid to Landlord in reimbursement.

4.3. **Additional Rent**. Tenant shall pay Landlord Additional Rent in amounts and in the manner as described below:

4.3.1. "Expenses" shall include all direct costs of operation and maintenance of the Building as determined by generally accepted accounting principles ("GAAP"), consistently applied, and shall include by way of illustration, but not be limited to:

(i) Taxes. Amounts paid by Landlord for real estate taxes, special assessments, or any governmental charges which may be levied or assessed against the Building. "Taxes" shall specifically exclude Landlord's income and/or franchise taxes and tax penalties.

(ii) Utilities. Amounts paid by Landlord for electricity, water, sewage, heating and air conditioning, and other utilities for the Common Areas of the Building. Amounts paid by Landlord for water used at the Building, including the Common Areas, the Premises and all other tenant space.

(iii) Insurance. Amounts paid by Landlord for all premiums for insurance required by this Lease or other property and liability insurance coverage with respect to the Building deemed to be reasonable by Landlord.

(iv) Maintenance. The reasonable cost of wages, including associated payroll taxes, insurance and fringe benefits, of non-management level persons employed by Landlord in connection with the operation or management of the Building, including, but not limited to, management personnel, secretaries, security guards (if any), carpenters, painters, laborers and other office, maintenance, security, janitorial or general cleaning personnel to the extent they perform services for the Building. The reasonable cost of services furnished by independent contractors with respect to the operation, repair, maintenance, security or cleaning of the Building. The reasonable cost of materials, tools and equipment, fluorescent and incandescent lamps, filters, cleaning supplies and maintenance items, purchased by Landlord in providing services to the Building.

(v) Operating Expenses. All reasonable amounts paid by Landlord for all direct costs of operations and maintenance (not otherwise specified above) as determined by GAAP. These shall include the following costs by way of illustration, but not limitation: Payroll expense, fuel, security, management fees, legal and professional fees, maintenance costs (including building and grounds), plumbing, heating, electrical, air conditioning and cleaning (including janitorial services, supplies, rubbish and snow removal).

(vi) Assessments. Assessments paid to the Owners Association pursuant to the Restrictive Covenants (defined below).

(vii) Depreciation. Depreciation, calculated over the useful life, for capitalized repairs/replacements of the Building systems (e.g., life safety systems, and the like).

Notwithstanding the preceding to the contrary, the following costs are specifically excluded from the definition of "Expenses": costs incurred for making installations or alterations to the Building which under GAAP are properly classified as capital expenditures, other than depreciation; costs incurred in correcting latent defects in the Building, Common Areas or Premises; loan fees, points and the like; mortgage principal and interest; costs incurred in negotiating leases; marketing costs; broker's commissions; Landlord's "overhead" (which shall include any salaries and fringe benefits of employees above the level of building manager); expenses otherwise reimbursable by specific tenants of the Building or insurance/condemnation proceeds; costs incurred to repair damages resulting from the negligent or willful acts of Landlord or its employees or agents; management fees in excess of five percent (5.0%) of gross rents, provided Tenant is not in default in the payment of Rent, any interest or penalties due for late payment by Landlord of any of the Expenses; costs for any item or service not provided to Tenant but exclusively provided to certain other tenants in the Building; legal fees incurred in resolving disputes, enforcing leases, or negotiating lease terms with prospective or existing tenants; expenses incurred in renovating any space for the purpose of leasing or releasing; costs arising from Landlord's charitable or political contributions; and any ground lease rental.

4.3.2. In any calendar year in which the rentable area of the Building is not fully occupied for the entire year, the Expenses (other than Taxes and Insurance (described above) and any other "Expenses" that do not vary with the level of occupancy) shall be "grossed up" as if the Building were 100% occupied for the entire calendar year. The "gross up" shall be based upon the Landlord's reasonable projections of the variable Expenses expected to be incurred if the Building were totally occupied for the entire calendar year, as determined under GAAP. Landlord shall have the duty during the Term to be reasonable in its selection of persons, firms and corporations providing services to the Building, taking into consideration the services required and their cost within the Durham, North Carolina area.

4.3.3. Commencing on the Commencement Date and continuing for the remainder of the Term, Tenant shall pay to Landlord, as Additional Rent, Tenant's Proportionate Share of any "Expenses" (as defined above). Should Tenant not have had the right to occupy the Premises for the entire calendar year, the amount of Additional Rent will be adjusted proportionately on a per diem basis. Landlord shall send Tenant, in writing, an itemized statement of any Additional Rent due from Tenant (the "Statement") on or before one hundred twenty (120) days after the end of each calendar year. The Statement shall include a reasonable description of any " gross up" calculations. Tenant shall pay that amount indicated in that Statement within thirty (30) days after the Statement is rendered. From the Commencement Date through the end of that calendar year, the parties agree that the Tenant shall pay the Initial Estimated Amount of Additional Rent each month. Thereafter, with each Base Rent payment Tenant shall pay Landlord, in advance, one-twelfth of the amount of Tenant's Proportionate Share of the "Expenses" for the preceding calendar year (calculated on an annualized basis if Tenant did not have the right to occupy the Premises for the entire calendar year) as a credit against Additional Rent due for the then current calendar year (the "Advance Payments"). At any time during the calendar year Landlord may increase the amount of the monthly Advance Payments for that year to account for unexpected increases in Expenses; provided that the increases for the year do not, in the aggregate, exceed ten percent (10%) of the Advance Payments originally set for that year. These Advance Payments shall be credited to Tenant's account for the applicable calendar year and that account shall be adjusted as necessary when the Statement for that calendar year is rendered. Any deficiency in the Advance Payments shall be noted in the Statement and paid within the thirty (30) day period noted above. Any excess in the Advance Payments shall be applied to the Additional Rent obligation otherwise due in the ensuing calendar year, or, if the Lease has been terminated and the excess has not been otherwise applied by the Landlord to cure an Event of Default (as defined below), shall be refunded to the Tenant with the Statement for that year. The Tenant's obligation to pay Additional Rent and the Landlord's obligation to refund any excess Advance Payments, as the case may be, shall survive a termination of this Lease.

4.3.4. Landlord shall maintain complete and accurate records of all costs incurred in the operation and maintenance of the Building and the furnishing of services to its tenants, including those which Landlord intends to include in Expenses. At any reasonable time, but no more than once in each calendar year. Tenant shall be entitled to inspect all of Landlord's records necessary to reasonably satisfy itself that all charges have been correctly allocated to Tenant. Tenant must give Landlord at least five (5) business days' prior written notice before exercising this inspection right. The inspection shall be conducted at the Managing Agent's business office during its regular business hours and shall be limited to either or both of the two (2) immediately preceding calendar years. Tenant shall be entitled to obtain an audit by an independent certified public accountant or such representative of Tenant as Tenant shall otherwise select (such representative to be selected by Tenant with Landlord's written consent, which shall not be unreasonably withheld) to determine the accuracy of Landlord's certification of the amount of Additional Rent charged Tenant. Tenant shall bear the total cost of any such audit, including, but not limited to, reimbursing Landlord for any out-of-pocket expenses (e.g., photocopying charges, accountant's fees, etc.) reasonably incurred by Landlord in connection with Tenant's audit. As an express condition of Tenant's rights under this Section, Tenant and its auditors shall keep the existence of the audit, any and all financial information obtained from the audit, and the results of its audit confidential. Notwithstanding anything in this Lease to the contrary, a breach of this confidentiality obligation shall automatically be an Event of Default and Tenant shall have no right to notice of, or right to cure, that default. Notwithstanding the preceding to the contrary, if the audit reveals that the Additional Rent for the Building for a particular calendar year was overstated by more than ten percent (10 %), the reasonable costs of the audit shall be borne by Landlord. Any deficiency/overpayment determined by the audit shall be paid by/refunded to Tenant within thirty (30) days after acceptance of the results of the audit by Landlord, which shall not be unreasonably withheld or delayed.

5. SECURITY DEPOSIT/FINANCIALS.

5.1. **Security Deposit**. Upon execution of this Lease, Tenant shall deposit the Security Deposit with the Landlord as security for Tenant's full and faithful performance of all Lease terms, covenants and conditions. Landlord is authorized to charge any damages it may sustain as the result of any default by Tenant against the Security Deposit. At the expiration or earlier termination of this Lease, any unused portion of the Security Deposit shall be returned to Tenant, but only after an inspection of the Premises has been made by Landlord after vacation by Tenant and after application of the Security Deposit as allowed under law. The obligation to return the Security Deposit shall survive termination of this Lease. The Security Deposit may be commingled with other funds and Tenant shall not be credited with or entitled to any interest on its Security Deposit. If prior to the termination of this Lease Landlord depletes the Security Deposit, in whole or in part, Tenant shall immediately restore the amount so used by Landlord. At the expiration of the Term or earlier termination of this Lease and/or whenever Landlord shall demand additional remittances of cash, Tenant shall be entitled to a complete accounting of all disbursements and applications of the Security Deposit as of that date.

5.2. **Financials**. Upon Landlord's request, but no more than one time per year, Tenant shall provide Landlord with a copy of Tenant's most recent financial statements (to include, at least, a current balance sheet and statements of profit and loss and cash flow, all prepared in accordance with generally accepted accounting principles, consistently applied) which shall be certified by an officer/manager of the Tenant and such other financial information concerning Tenant as reasonably requested by Landlord. Landlord agrees to hold that financial information in confidence and to use the same degree of care in protecting the confidentiality of that information as it uses in protecting its own confidential information. Notwithstanding the preceding to the contrary, so long as the Tenant is a publicly traded company, the Tenant shall have no obligation under this Section.

6. IMPROVEMENTS.

6.1. **Landlord Improvements**. Landlord, at its sole cost and expense, has designed and constructed the Building as reflected in the Landlord Improvements. As of the date of delivery of the Premises to the Tenant, Landlord represents that the Landlord Improvements have been substantially completed in substantial accordance with that Schedule and otherwise in a workmanlike manner and in substantial compliance with all applicable building, fire, health, and sanitary codes and regulations and other applicable laws.

6.2. **Tenant Improvements**. Promptly after the Execution Date, Landlord, at Tenant's sole cost and expense, shall commence and diligently pursue completion of the Additional Tenant Improvements to be constructed by it on the Premises. All Additional Tenant Improvements shall be constructed in substantial accord with ***Schedule C*** (as approved by the parties), in a workmanlike manner, and otherwise in substantial compliance with all applicable building, fire, health, and sanitary codes and regulations, and shall be performed by a licensed general contractor selected by Landlord and reasonably acceptable to Tenant. Once approved, no material changes to the Additional Tenant Improvements may be made without the written consent of both parties, which shall not be unreasonably withheld, conditioned, or delayed. All approved changes shall be made in the form of a change order ("Change Order") setting forth the increased costs, if any, caused by the change and specifying any anticipated delay relating to that Change Order, it any. Landlord shall be entitled to receive a supervision fee from Tenant on all Change Orders equal to the greater of: (i) seven percent (7.0%) of the amount of the Change Order; and (ii) $50.00. Tenant shall reimburse Landlord for any increased costs, including any applicable supervision tees, within ten (10) days of Tenant's receipt of the invoice from Landlord for those increased costs. Unless otherwise noted in writing in ***Schedule C*** or in the applicable Change Order, the Additional Tenant Improvements shall remain and be surrendered with the

Premises on expiration of the Lease. If ***Schedule C*** or the Change Order provides that certain improvements are not to be surrendered, Tenant, at its sole cost, shall, upon termination of the Lease, remove those Additional Tenant Improvements which are not to remain and repair all damage to the Premises caused by their removal. This obligation shall survive a termination of the Lease. Except to the extent such is included in the Landlord's property tax bill for the Building or as otherwise stipulated by the parties, during the Term, Tenant shall be responsible for any ad valorem taxes relating to the Additional Tenant Improvements whether such are to remain or be removed. Upon completion of the Tenant Improvements, Tenant, at its expense, shall provide Landlord with an as-built set of plans for the Tenant Improvements.

6.3. **Tenant Upfit Allowance**. Notwithstanding ***Section 6.2***, the Landlord shall contribute the Tenant Upfit Allowance towards the costs and expenses incurred in designing and/or constructing the Tenant Improvements

(the "Upfit Costs"). The Tenant Upfit Allowance shall be paid by Landlord directly to the general contractor and others based on invoices submitted. Tenant shall be responsible for any and all Upfit Costs in excess of the Tenant Upfit Allowance (the "Excess Upfit Costs"). Once the budget for the design/construction of the Additional Tenant Improvements (including all design/construction, signage, landscaping, etc. costs) is approved by the parties, Tenant shall pay to Landlord the positive difference, if any, between the estimated Upfit Costs set out in that approved budget and the Tenant Upfit Allowance (the "Payment"). The Payment shall be made within thirty (30) days of the Budget Approval Date. Landlord shall use the Payments in funding the Upfit Costs and shall be entitled to disburse the Payments to the general contractor and others based on invoices submitted. Any portion of the Tenant Upfit Allowance not so expended by the Landlord (up to a maximum of $2.00/sq. ft.) may be used by the Tenant towards the commercially reasonable costs incurred by Tenant in installing the exterior sign contemplated under ***Section 10*** below and Tenant's trade fixtures. Tenant's written request for reimbursement of these costs shall be accompanied by all reasonable supporting documentation.

7. **ALTERATIONS, ADDITIONS AND IMPROVEMENTS**. Except for the Additional Tenant Improvements, Tenant shall not make any alterations, additions or improvements, structural or otherwise (the "Alterations") in or to the Premises without Landlord's prior written consent. The plans and specifications for any approved Alterations shall be subject to Landlord's prior written approval and once approved, shall not be materially changed without the Landlord's prior written consent. Tenant shall provide Landlord with a copy of the plans and specifications and estimated construction costs for the Alterations prior to commencing construction. All Alterations shall be made promptly, in a workmanlike manner, paid for by Tenant allowing no liens to attach either to the Premises or to Tenant's leasehold interest, and so as not to unreasonably disturb or inconvenience other tenants in the Building. Landlord shall have the right to require Tenant to provide such assurances as Landlord shall reasonably require (e.g., bonds, escrows, etc.) to protect Landlord against unpaid work and to require that any work be performed only by duly licensed contractors and subcontractors approved by Landlord. Upon a termination of the Lease, Tenant shall provide Landlord with copies of all unexpired construction warranties related to the Alterations, all of which shall be deemed assigned to Landlord. Unless otherwise noted in Landlord's written approval of the Alteration, any Alteration shall remain and be surrendered with the Premises on expiration of the Lease. If Landlord's approval of the Alteration provides that the Alteration is not to be surrendered, Tenant, at its sole cost, shall remove that Alteration which is not to remain and shall repair all damage to the Premises caused by that removal. This obligation shall survive a termination of the Lease. Notwithstanding anything in this Lease to the contrary, Tenant shall be responsible for any ad valorem taxes or increase therein resulting from Alterations made by or at the direction of Tenant. The Landlord consents/approvals required under ***Section 7*** shall not be unreasonably withheld, conditioned or delayed. Provided it is not in default under this Lease and makes any repairs to the roof caused by the removal, upon termination of this Lease Tenant, at its sole expense, shall be permitted to remove those items identified as trade fixtures (e.g., hoods, casework, and countertops) which are included in any Alterations. Tenant shall be permitted to remove the counters and hoods currently in the Premises (i.e., existing as of the Execution Date) and shall not be required to repair or replace such items at the end of the Term.

8. **SERVICES/PARKING/REPAIRS.**

8.1. **Utilities/Janitorial**. Landlord shall, at its expense, cause all utilities (except water/sewer services) to be separately metered for the Premises. Except for the cost of water/sewer services used at the Premises (which shall be provided by Landlord and included in "Expenses"). Tenant, at its sole expense, shall be responsible for the costs of all utility services used by the Tenant in its operations at the Premises.

8.2. **Access/Parking**. Landlord shall provide Tenant with 24 hour, 7 days a week, 52 weeks a year access to the Premises. The Tenant shall be allocated 4.5 unmarked parking spaces per 1000 rentable square feet included in the Premises. The parking spaces, however, shall generally be allocated among the Building's tenants in accordance with each Tenant's Proportionate Share. Except as required by law or applicable zoning codes, the parking spaces shall be unmarked.

8.3. **Repairs**.

8.3.1. The Landlord, at its own expense, shall promptly repair or replace any and all defects in the Landlord Improvements and Common Areas and all latent defects in the Additional Tenant Improvements. Landlord shall also maintain, repair and replace: (a) the structural integrity of the Building (including, but not limited to, the foundation, the exterior walls (but, excluding exterior glass), the supporting framework, the floor slab

(exclusive of any floor coverings), and roof and roof membrane); (b) the Common Areas, which shall be maintained in accordance with the standards of a Class A office park for the Research Triangle Park, North Carolina area; and (c) any damages resulting from its or its employees, agents, or invitees negligent or willful acts. Repairs required of Landlord shall be made within five (5) business days after Landlord receives written notice from Tenant, or has actual knowledge, of the need for the repair (except that if the repair cannot be reasonably cured within that period, Landlord shall not be in default so long as it promptly and diligently pursues completion of the repair). Except as assigned to Landlord above, Tenant, at its own expense, shall maintain and repair the Premises (including, but not limited to, the repair and replacement of the exterior glass, mechanical, plumbing, electrical systems, interior walls, floors, ceilings, security systems, the sprinkler system, and the monitoring systems) and otherwise make all repairs relating to the Premises. All repairs to be made by Tenant shall be made promptly, in a workmanlike manner, paid for by Tenant allowing no liens to attach either to the Premises or to Tenant's leasehold interest, and so as not to unreasonably disturb or inconvenience other tenants in the Building. Landlord shall have the right to require Tenant to provide such assurances as Landlord shall reasonably require (e.g., bonds, escrows, etc.) to protect Landlord against unpaid work and to require that any work be performed only by duly licensed contractors and subcontractors approved by Landlord. Landlord shall make available to Tenant any warranties Landlord has received which are applicable to the repairs to be performed by Tenant. Tenant shall reimburse Landlord for all costs incurred by Landlord (over and above those amounts reimbursed by insurance carried by Landlord), along with a ten percent (10%) overhead fee, for all repairs to the Common Areas, or Building arising out of Tenant's or its employees, agents, or invitees, negligent or willful acts. Continuously throughout the Term, Tenant shall maintain, at its expense, a maintenance contract covering the HVAC system located in or serving exclusively the Premises with a service contractor acceptable to and approved by Landlord in its reasonable discretion. This contract shall provide for routine maintenance, including, but not limited to, timely changing of all filters (at recommended intervals), adjustment and inspection of air handling mechanisms and control equipment, and performance of necessary lubrication, testing, and other such normal maintenance procedures. Notwithstanding the preceding to the contrary, in the event the Tenant fails to maintain the required HVAC maintenance contract, Landlord reserves the right to arrange for the HVAC system maintenance contract and charge Tenant for the reasonable costs of that contract.

8.3.2. Notwithstanding the above provisions to the contrary, except where the need for the HVAC Capital Repair (as defined below) is caused by Tenant's or its agents', employees' or invitees' negligent or willful acts or Tenant's failure to keep the required HVAC maintenance contract continuously in effect, Tenant's repair obligations under this Lease with respect to the Premises' HVAC system shall not include any capital repair/replacements costing more than $2500.00 (a "HVAC Capital Repair"). Landlord, after notice of the need for an HVAC Capital Repair is received from the Tenant, shall, at its own expense, promptly and diligently cause the HVAC Capital Repair to be made. Tenant shall nevertheless reimburse the Landlord for the first $2500.00 of the reasonably necessary costs incurred by Landlord in completing the HVAC Capital Repair.

8.4. **Liability**. Provided that the causes of the damage are not directly under the care, custody or control of Landlord, Landlord shall not be liable to Tenant for any damage caused to Tenant or its property due to the Premises, Building, or Common Areas (or any part or appurtenances thereof) being or becoming out of repair or arising from the failure of any utility service. Tenant shall promptly report to Landlord any defective condition in or about the Premises, Building, or Common Areas known to Tenant. Tenant shall promptly report to the applicable utility company any interruption of its utility service. So long as Landlord acts reasonably and in good faith and without negligence, there shall be no abatement or reduction of Rent by reason of any of the utility services not being continuously provided to Tenant, nor shall such interruption of utility services constitute either a constructive or partial eviction.

9. **TAXES AND ASSESSMENTS**. Landlord shall list the Building for ad valorem tax purposes and shall pay all tax assessments of whatever kind or nature assessed against the Building, all of which shall be included in "Expenses". The Tenant shall pay all taxes and assessments imposed on Tenant's personal property located on the Premises, whether affixed or not, and all other taxes, fees and assessments imposed for its use of the Premises.

10. **SIGNS**. Tenant shall have the right to erect on and in the Building and the Premises such signs as may be reasonably necessary to identify and advertise Tenant and its business which will include, but not be limited to its corporate name and/or logo. One (1) exterior identification sign shall be included in the Additional Tenant Improvements. Tenant will pay for the planning, fabrication, and installation of the approved signage. Notwithstanding the preceding to the contrary, this right to erect signs is conditioned on: (i) only one (1) exterior

sign shall be permitted; (ii) the Landlord's prior written consent as to form, size, color and location, which shall not be unreasonably withheld, conditioned or delayed; (iii) compliance with any applicable zoning or building codes; and (iv) compliance with the Rules & Regulations. Landlord, at Tenant's expense, shall maintain and repair all exterior signage, if any, erected pursuant to this Section. The Tenant, at its sole expense, shall remove all signs erected for/by Tenant upon termination of the Lease and shall repair any damage to the Premises and Building caused by their removal. This repair/removal obligation shall survive a termination of the Lease. All exterior decor and exposed sides of drapes, blinds, shutters, and other window treatments must receive Landlord's prior written approval. The Landlord consents/approvals required under ***Section 10*** shall not be unreasonably withheld, conditioned or delayed.

11. INSURANCE/INDEMNIFICATION.

11.1. Property Insurance. Landlord shall carry all-risk property damage and hazard/casualty insurance with extended coverage insuring against loss or damage to the Building and/or other improvements in amounts and with companies as Landlord in its discretion chooses; but in no event shall coverage amounts be less than full replacement cost of the Building. The cost of this insurance shall be included in "Expenses". The policy shall show Landlord as the named insured and its Lender (defined below) as an additional insured. Tenant shall maintain and care for its personal property on the Premises and insure the same to such extent as it deems appropriate. Neither Landlord nor Managing Agent shall be liable for any loss or damage to Tenant's personal property, irrespective of the cause.

11.2. Liability Insurance. Tenant shall, at its expense, maintain in effect a commercial general liability policy with coverages not less than the Tenant Liability Coverage. Limits in excess of $1,000,000.00 may be provided by an umbrella/excess policy. This policy shall show Landlord and Managing Agent as additional insureds. Landlord shall maintain in effect a commercial general liability policy with coverages not less than the Landlord Liability Coverage. The cost of this insurance shall be included in "Expenses".

11.3. Worker's Compensation. Tenant shall, at its expense, maintain Worker's Compensation Insurance coverage sufficient to meet all local, state and federal governmental regulations.

11.4. Rental Income Insurance. Tenant shall, at its expense, maintain business interruption insurance in an amount equal to the Business Interruption Insurance Coverage. This insurance shall insure that the Base Rent will be paid to Landlord (unless such Rent is abated or this Lease terminates, as provided below) if the Premises are destroyed or rendered unusable by a risk insured against by a policy of standard fire and extended coverage insurance, with vandalism and malicious mischief endorsements.

11.5. Policies. All required policies of insurance shall be maintained continuously throughout the Term and provide that they may not be changed or cancelled without ten business (10) days' prior written notice to both Landlord and Tenant and shall be underwritten by insurers who have a general policyholders rating of not less than "A-VII" as stated in the most current available A.M. Best Insurance Reports, who are licensed to do business in North Carolina, and who are authorized to issue the policies. At either party's request, a certificate (ACORD Form No. 27) evidencing the required insurance shall be given to the requesting party. The general liability policies shall be on ISO Form CG 0001 0196 or equivalent "occurrence basis" insurance policy form. Notwithstanding anything in this ***Section 11*** to the contrary, Landlord shall be entitled, upon thirty (30) days' advance written notice to Tenant, to increase the policy coverage requirements to meet its Lender's (as defined below) requirements.

11.6. Indemnification. Except where caused by the Landlord's or its employee's, agent's, or contractor's negligence or willful misconduct, Tenant shall indemnify and hold the Landlord and its employees and agents harmless from any liability for injury to or death of any person or damage to any property relating to or arising out of the Tenant's or its invitee's, employee's, agent's or contractor's use of the Premises. Landlord shall indemnify and hold the Tenant and its employees and agents harmless from any liability for injury to or death of any person or damage to any property relating to or arising out of Landlord's or its employee's, agent's or contractor's negligence or willful misconduct. If the party to be indemnified is made a party to any litigation commenced by or against it for which it is to be indemnified, then the indemnifying party shall protect and hold harmless and pay all court costs, penalties, charges, damages, expenses, and reasonable attorney's fees incurred or paid by the party to be indemnified. These obligations shall survive a termination of the Lease.

11.7. Waiver of Subrogation. Notwithstanding the language of ***Section 11.6*** to the contrary or that the loss or damage may be due to or result from the negligent or willful act of a party or its employees or agents, Landlord and Tenant, for themselves and their respective insurers, release each other from any and all claims, demands, actions and causes of action that each may have or claim to have against the other for loss or damage to persons or property, both real and personal, caused by or resulting from casualties required to be insured against by the terms of this Lease or otherwise insured against by the party suffering the loss or damage. All policies of insurance required by this Lease shall contain a provision whereby the insurer waives all rights of subrogation against either Tenant or Landlord, as appropriate. If insurance policies with waiver of subrogation provisions shall be obtainable only at a premium, the party seeking the policy shall pay that additional premium. Except to the extent insurance pays (or would have paid if the insurance coverage required by this Lease was in effect) a claim subject to indemnification, this release is not intended to nor shall it release a party from its indemnification obligations as set out in this Lease. These obligations shall survive a termination of the Lease.

12. DESTRUCTION/CONDEMNATION.

12.1. Destruction of Premises.

(A) Total Destruction. If the Premises are totally destroyed by fire or other casualty, either Landlord or Tenant may terminate this Lease by giving written notice of termination not later than thirty (30) days after the date of the destruction. In that event, Base Rent and Additional Rent paid for the period beyond the date of destruction shall be refunded to Tenant and neither party shall have any further obligations under this Lease except for those obligations which are expressly provided to survive a termination.

(B) Partial Destruction. If there is not total destruction of the Premises, yet: (i) Landlord, in its sole reasonable judgment, concludes that restoration of the damage cannot be completed within one hundred eighty (180) days; or (ii) less than six (6) months of the Term remains; or, (iii) insurance proceeds (along with funds Landlord, in its discretion, decides to provide) in an amount sufficient to restore the Premises is not made available to Landlord (provided, that Landlord shall use commercially reasonable efforts to obtain the proceeds to which it is entitled under its applicable insurance policy); Landlord or Tenant may, at their option, terminate this Lease by giving written notice of termination not later than ten (10) days after the date Landlord provides Tenant with the information described below. In that event, Base Rent and Additional Rent paid for the period beyond the date of destruction shall be refunded to Tenant and neither party shall have any further obligations under this Lease except for those obligations which are expressly provided to survive a termination. Within thirty (30) days after the casualty, Landlord shall furnish Tenant with Landlord's estimate of the time required to complete repairs and whether or not sufficient funds are available to pay for the required repairs.

(C) Repair/Restoration. If the Lease is not terminated pursuant to Subparagraphs (A) or (B), Landlord, at its expense, shall promptly restore and/or repair the Premises (other than Alterations or Additional Tenant Improvements identified as being required to be removed by Tenant upon a termination of the Lease, all of which shall be the Tenant's sole responsibility) and any other portions of the Building outside the Premises required for Tenant's use of the Premises. In no event shall Landlord be required to restore fixtures or improvements made or owned by Tenant. If Tenant is reasonably required to close all or a portion of its operations during the period of repair/restoration, Base Rent and Additional Rent shall abate on a proportional basis (based upon the square footage of the unusable portion of the Premises) during that period. In no event shall Landlord have any liability for losses claimed by Tenant resulting, directly or indirectly, from Tenant's inability to use the Premises. Unless otherwise agreed in writing by Landlord and Tenant at the time the restoration/repairs are commenced, in the event Landlord fails to Substantially Complete the restoration/repairs within one hundred eighty (180) days after the date of the destruction other than as a result of Tenant Delays, Tenant may terminate the Lease by giving written notice of termination to Landlord at any time prior to Substantial Completion of the restoration/repairs.

(D) Tenant's Fault. Notwithstanding the above to the contrary, if the Premises are damaged by the willful or grossly negligent acts or omissions of Tenant, its employees, agents, customers, or guests, Tenant may not terminate this Lease and there shall be no apportionment or abatement of Rent.

12.2. Condemnation of Premises. If all of the Premises, or a portion which will make the remainder unusable for the Tenant's Permitted Use, be taken under the power of eminent domain (or a conveyance in lieu thereof), then this Lease shall terminate as of the vesting of title in the condemning authority and Base Rent and

Additional Rent obligations shall be adjusted between Landlord and Tenant as of that date. If only a portion of the Premises are taken and Tenant can reasonably continue use of the remainder, then the Lease will not terminate, but Base Rent and Additional Rent obligations shall abate in a just and proportionate amount to the loss of use occasioned by the taking. Except as otherwise provided by the authority granting an award of damages, Tenant shall have no right or claim to any part of any award made to or received by the Landlord for any taking of the Premises and no right or claim for any alleged value of the unexpired portion of this Lease; provided, however, that Tenant shall not be prevented from making a claim against the condemning party (but not against Landlord) for any moving expenses, loss of profits, or taking of Tenant's personal property (including its leasehold interest) to which Tenant may be entitled. No Tenant's claim may, however, diminish Landlord's award with respect to the Premises. For purposes of this Section, Landlord shall make a good faith determination as to whether the Premises are unusable or not after a taking. If less than a fee title to all or any portion of the Premises shall be taken or condemned by any governmental authority for temporary use or occupancy, this Lease shall continue in full force and effect without reduction or abatement in Rent.

13. CARE/RETURN OF PREMISES.

13.1. Care of Premises. Tenant shall not permit or cause any act to be performed upon, in or about the Premises which shall cause or be likely to cause injury to any person or to the Premises, the Building, or Common Areas, or any adjoining property. Tenant shall at all times keep the Premises in a neat and orderly condition. The Tenant agrees to take reasonable care of the Premises, fixtures, and appurtenances and suffer no waste or injury thereto.

13.2. **Return of Premises**. Upon the termination of this Lease, Tenant shall return the Premises to Landlord substantially in the same condition as received and shall deliver to the Landlord a certification from a mutually acceptable independent third party that the Premises have been fully decommissioned; i.e., a third party report stating that the Premises do not contain hazardous residual levels of any Hazardous Substances (as later defined). Excepted from this obligation are: (i) conditions which are the Landlord's responsibility or result from Landlord's or its agent's or employee's negligence, a casualty required to be insured against by Landlord under this Lease, or a condemnation; (ii) ordinary wear and tear; and, (iii) Tenant Improvements and approved Alterations which Landlord has not required to be removed. This obligation shall survive a termination of the Lease. Any failure by the Tenant to comply with this Section which results in a delay in Landlord's ability to deliver the Premises to a successor tenant shall be deemed to be a holdover (as described in ***Section 14*** below) by the Tenant for the period it takes the Tenant, or if Tenant fails to do so, the Landlord to complete any required repair/replacement activities.

14. **HOLDING OVER**. In the event Tenant remains in possession after the expiration of the Term without the execution of a new lease, Tenant shall not acquire any right, title or interest in the Premises. In that event, Tenant shall occupy the Premises as a tenant from month-to-month and shall otherwise be subject to all applicable conditions, provisions and obligations of this Lease; except that all options and rights of renewal, rights of first refusal, and the like, if any, shall terminate. Notwithstanding the above, Landlord shall have the right to pursue summary ejectment of Tenant as provided by law and to recover from the Tenant any and all damages suffered as a result of that holdover, including, but not limited to, damages relating to any loss of a prospective tenant for the Premises. During the holding over period, Tenant shall pay monthly rent equal to the Holdover Rent Multiple times the Base Rent Installment Amount in effect as of the last month of the Term.

15. **ASSIGNMENT.**

15.1. **Restriction**. Tenant shall not have the right to assign this Lease or to sublet the Premises, in whole or in part, whether voluntarily or by operation of law, without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned, or delayed. It shall not be unreasonable for the Landlord to withhold consent if: (i) it is not assured that substantially the same type, class, nature and quality of business, prestige, reputation, and financial soundness of ownership and management, is maintained by the proposed assignee/sub-tenant; (ii) occupancy by the proposed assignee/sub-tenant would violate the terms of the Lease, cause the Landlord to be in breach of any restrictive covenant relative to the Building or other leases, or increase the costs of operation for the Building; (iii) the Landlord's Lender (described below) withholds its consent or Landlord's granting consent would be a breach of the Deed of Trust (described below); (iv) any guarantor of the Lease fails or refuses to acknowledge its consent to the assignment/sublease and the continuing nature of its guaranty obligations;

or (v) Tenant fails to provide Landlord with a copy of the proposed assignment/sublease. All public advertisements of the assignment of the Lease or sublet of the Premises, or any portion thereof, shall be subject to prior written approval by Landlord, such approval not to be unreasonably withheld or delayed. Said public advertisement shall include, but not be limited to, the placement or display of any signs or lettering on the exterior of the Premises or on the glass or any window or door of the Premises or in the interior of the Premises if it is visible from the exterior. If Landlord unreasonably withholds its consent, Tenant's sole and exclusive remedy is specific performance and under no circumstances will Landlord be liable for damages. If Tenant is other than an individual, then the passage of majority interest in Tenant to parties other than those who presently own those interests shall be deemed an assignment of this Lease except that if a majority in interest of Tenant passes as a result of a debt or equity financing of the Company. In no event shall this Lease be assignable by operation of any law . Tenant's rights under this Lease may not become, and shall not be listed by Tenant as an asset under any bankruptcy, insolvency or reorganization proceedings. Notwithstanding anything in this Lease to the contrary, a breach of the restrictions of this Section shall automatically be an Event of Default and Tenant shall have no right to notice of, or right to cure, that default.

15.2. **Notice**. If Tenant proposes to assign any interest in this Lease or to sublet all or any portion of the Premises, Tenant shall first submit to Landlord a written notice of its intentions (the "Notice of Intent"). The Notice of Intent shall contain: (1) the name of the proposed assignee/subtenant; (2) the terms of the proposed assignment/subletting and a copy of the proposed assignment/sublease agreement; and, (3) any other information reasonably requested by Landlord. Whether or not the transfer requires the Landlord's prior consent, Tenant shall promptly provide Landlord with an executed original of the assignment or a certified copy of the merger/conversion/reorganization document, as the case may be. If Landlord consents to the proposed assignment/sublease, it shall be an express condition of that consent that no material modification or assignment of that assignment/sublease shall be permitted without the Landlord's prior written consent.

15.3. **Modification Option**. If Tenant gives the Notice of Intent, Landlord shall have the option to modify this Lease so as to exclude the space proposed to be assigned/sublet (the "Excluded Space") for the term of the assignment/subletting. Provided Landlord gives Tenant written notice of the exercise of this option within ten (10) business days of receipt of the Notice of Intent, the modification of this Lease shall be effective (without further documentation) as of the date of commencement of the term of the proposed assignment/sublease. If Landlord exercises its option as described above, Tenant's Base Rent and Additional Rent obligations shall abate in a just and proportionate amount to the Excluded Space and Tenant shall have no further obligations with respect to the Excluded Space.

15.4. **Liability** . Unless the Landlord has reclaimed the space pursuant to ***Section 15.3***, any assignment or sublease to which Landlord may consent (one consent not being any basis to contend that Landlord should consent to further assignments or subleases) shall not relieve Tenant of its Lease obligations.

15.5. **Costs**. If Tenant shall request Landlord's consent to an assignment/subletting of the Lease, Tenant shall pay Landlord's reasonable attorney fees incurred in connection with that matter, such fees not to exceed $1,000.00 for each request.

15.6. **Affiliated Entities**. Tenant may, without the Landlord's prior consent, assign this Lease to an Affiliated Entity (as defined below); provided that the assignment to the Affiliated Entity shall be permitted only so long as the assignment is made for a good faith business purpose and the assignee remains an Affiliated Entity. Tenant shall nevertheless give Landlord prompt notice of such any such assignment or sublease, which shall include the information specified in ***Section 15.2***. The provisions of ***Section 15.3*** shall not apply to this type of assignment. For purposes of this Lease, an "Affiliated Entity" shall mean a partnership, corporation, or limited liability company over which the owners of Tenant or Tenant has legal control, the purchaser of substantially all of Tenant's assets, or the surviving entity in a merger involving Tenant. An assignment pursuant to this Section shall not release Tenant or any guarantors from their respective obligations under this Lease.

15.7. **Excess Consideration**. In the event of an assignment of the Lease or a subletting of the Premises to any entity other than an Affiliated Entity, fifty percent (50%) of the cash consideration received by Tenant (but not any other non-cash consideration) from that assignment or sublease over the amount paid as Rent during the comparable period (the "Excess Consideration") shall be paid to Landlord as Additional Rent on a monthly basis. In the event less than all of the Premises is subleased, a pro rata portion (calculated on a per square foot basis) of the

Rent paid by Tenant shall be used in calculating the Excess Consideration. The reasonable leasing commissions paid by Tenant, the amortization of the cost of any improvements made to the Premises at Tenant's cost for the assignee/sublessee, and other reasonable, out-of-pocket costs paid by Tenant to unaffiliated third parties in connection with the assignment/subletting shall be deducted in calculating the Excess Consideration. Within ten (10) days of the date the assignee/subtenant begins occupancy in the Premises, the Tenant shall send Landlord a copy of the executed Lease Assignment or Sublease, as applicable, and a detailed statement showing the calculation of the Excess Consideration, including the total consideration to be paid by the subtenant/assignee over the term of the assignment/subletting and any costs (to be accompanied by reasonable supporting documentation) to be deducted from that amount as permitted by this Section. Landlord shall have the right, one time during each sublease year, during business hours and upon prior reasonable notice to Tenant, to audit Tenant's books and records to verify the accuracy of that statement.

16. **DEFAULT/REMEDIES.**

16.1. **Tenant Default**. The following events (the "Events of Default") shall each constitute a default by the Tenant:

(A) If Tenant timely fails to pay any sum due Landlord under the Lease, which failure shall continue for a period of five (5) business days after receipt or deemed receipt of written notice by Tenant; or

(B) If Tenant shall fail to perform any non-monetary term, condition, covenant or agreement of this Lease which continues for a period of ten (10) days after receipt or deemed receipt of written notice by Tenant (except that if the default cannot be reasonably cured within that period, Tenant shall not be in default so long as Tenant promptly and diligently pursues the cure and is not otherwise in default); or

(C) If Tenant (or, if Tenant is a partnership, if any partner of Tenant) shall file a petition in bankruptcy, make any assignment for the benefit of its creditors, or admit in writing its inability to pay its debts generally as they become due; if any court of competent jurisdiction shall enter a decree or order adjudicating it bankrupt or insolvent; or if any trustee or receiver for Tenant or for any substantial part of its property be appointed or if any person shall file a petition for involuntary bankruptcy against Tenant and such appointment or petition shall not be stayed or vacated within sixty (60) days of entry thereof; or

(D) If Tenant's interest in this Lease or the Premises shall be subjected to any attachment, levy or sale pursuant to any order or decree entered against Tenant in any legal proceeding and the order or decree shall not be vacated within thirty (30) days of its entry; or

(E) If Landlord, with reasonable cause, on more than two (2) occasions in any twelve (12) month period, gives notice to Tenant of default under subparagraphs (A) or (B) above, notwithstanding Tenant's subsequent cure of the noticed defaults within the allowable periods.

16.2. **Remedies Upon Tenant Default**.

(A) Upon the occurrence of any Event of Default, Landlord, with or without terminating this Lease, immediately or at any time thereafter, shall have the right, at its option, to utilize any one or more of the following remedies: (i) Landlord may make any payment required of Tenant and/or re-enter the Premises and correct or repair any condition which shall constitute a failure on Tenant's part to keep or perform. Tenant shall reimburse Landlord for any reasonable expenditures made by Landlord in making the payment and/or corrections or repairs within fifteen (15) days after delivery of a statement to Tenant accompanied by reasonable documentation supporting the demand.

(ii) Landlord may demand in writing that Tenant vacate the Premises. Tenant shall vacate the Premises and remove all its property within ten (10) business days of Tenant's receipt of the notice, whereupon Landlord shall have the right to re-enter and take possession of the Premises.

(iii) Landlord may re-enter the Premises and remove Tenant and all of Tenant's property.

(iv) Landlord may re-let all or any portion of the Premises for such time, rent, and other terms and conditions as Landlord, in its sole discretion, may deem advisable. Landlord may make any alterations or repairs to the Premises which it may reasonably deem necessary or proper to facilitate the reletting. Tenant shall pay all commercially reasonable costs of the reletting including the commercially reasonable cost of any alterations or repairs to the Premises. If this Lease shall have not been terminated by Landlord, Tenant shall continue to pay all charges due from Tenant under this Lease up to and including the date of beginning of payment of rent by any subsequent tenant of part or all of the Premises, and thereafter, Landlord may accelerate and collect from Tenant the difference, if any, between the rent to be collected from that subsequent tenant and the Rent reserved in this Lease for the balance of the Term, after discounting the difference to its present value by a factor equal to Landlord's bank's then announced prime rate. In no event shall Tenant be entitled to receive any excess of any rents collected by Landlord over the rents due from it.

(v) Landlord may terminate this Lease without notice or demand to vacate the Premises. This Lease shall be deemed to have been terminated by Landlord only upon Landlord's written notice of termination. Upon termination Landlord shall nevertheless remain entitled to recover from Tenant all sums provided for in subparagraph (iv) above as if the Lease were not terminated.

(vi) Landlord may exercise any other remedies and recover any other damages available to it under law or in equity.

(B) In the event of any re-entry of the Premises by Landlord pursuant to any of the provisions of this Lease, Tenant waives all claims for damages which may be caused by that re-entry except those claims arising from the Landlord's gross negligence or willful misconduct not otherwise covered by insurance maintained by the Tenant. Tenant shall reimburse the Landlord for any and all losses, costs, expenses (including legal expenses and reasonable attorney's fees), and damages suffered by Landlord by reason of its re-entry, removal and/or storage of Tenant's property. No re-entry shall be considered or construed to be a forcible entry.

(C) Upon any breach of this Lease, regardless of whether that breach is, or becomes, an Event of Default, Landlord shall be reimbursed for any and all commercially reasonable expenses incurred by Landlord, including legal expenses and reasonable attorney fees, in enforcing the terms and provisions of this Lease.

(D) Any of Tenant's personal property remaining at the Premises after a repossession of the Premises by Landlord after an Event of Default or after a termination of the Lease shall be deemed abandoned by the Tenant. Tenant shall be liable for any and all reasonable storage and/or removal costs incurred by Landlord in storing and/or removing that abandoned property. In addition, Landlord shall be entitled to sell the abandoned property in order to recover those storage/removal costs and any other amounts due from Tenant under the Lease. The sale of the abandoned property may be by private or public sale as contemplated under the North Carolina Uniform Commercial Code or in any other form provided by law. This right shall be in addition to any statutory lien for rent or similar rights available to Landlord under law or this Agreement.

16.3. **Landlord's Default**. Should Landlord breach any of its duties or obligations to Tenant and, in the case of a monetary default, the breach continues for five (5) business days after written notice is given to Landlord, or in the case of a non-monetary default, the breach continues for ten (10) days (or such longer period of time as it may reasonably take to cure provided Landlord promptly and diligently pursues the cure and is not otherwise in default) after written notice of the breach is given to Landlord, Tenant may take such action as is reasonably necessary to cure the breach. In this event, Landlord shall, upon demand (accompanied by reasonable documentation supporting the demand) reimburse the Tenant for expenses reasonably incurred by Tenant in curing Landlord's breach, including legal expenses and reasonable attorney fees. If Landlord shall fail to promptly reimburse Tenant, Tenant may withhold or abate its rental payment due to the extent of the unreimbursed expenses. In the event of any dispute about Tenant's right to abate or withhold Rent or other sums payable to Landlord under this Section, Tenant must deposit the disputed amounts in escrow in an interest-bearing account with a national bank in Raleigh, North Carolina, conditioned on resolution of the dispute by a final, nonappealable court order or by mutual written agreement of Landlord and Tenant. Any interest earned shall be paid to the party entitled to the escrowed funds and any fees of the escrow agent shall be paid by the party not entitled to the escrowed funds. Regardless of the outcome or resolution of the dispute, no Event of Default with respect to the subject matter of the dispute shall be deemed to have occurred so long as the disputed amounts are deposited in escrow by Tenant.

16.4. **Mitigation**. Whenever a party is in default under this Lease, the non-defaulting party shall use commercially reasonable efforts to mitigate the damages resulting from the default.

17. **SUBORDINATION/ATTORNMENT/ESTOPPEL.**

17.1. **Subordination**. Depending on the requirements of the then beneficiary of any deed of trust which is a lien against the Building (the "Lender"), this Lease and the rights of Tenant will either be subordinate or superior to the lien of that deed of trust (the "Deed of Trust") whether the Deed of Trust is currently a lien on the Premises or subsequently becomes a lien on the Premises. No further agreements or documents shall be required to render this Lease and the Tenant's rights subordinate or superior to the Deed of Trust. Should Lender request, Tenant will execute an agreement making this Lease superior or subordinate, as the case may be. Should Tenant fail to deliver the document within ten (10) business days of Lender's request, it shall be deemed an Event of Default without any further notice to Tenant. The subordination agreement shall include language to the effect that Tenant's tenancy shall not be disturbed nor affected by any default under the Deed of Trust provided that Tenant is not in default beyond applicable cure periods under any of the Lease terms and shall otherwise be reasonably acceptable to the Tenant.

17.2. **Attornment**. In the event Landlord's interest in the Premises passes to a successor (the "Successor") by sale, lease, foreclosure, or in any other manner, Tenant and any guarantor of this Lease shall be bound to the Successor under all of the terms of this Lease for the balance of the Term, with the same force and effect as if the Successor were the Landlord under the Lease. Tenant and any guarantor of this Lease, is deemed to attorn to the Successor as its landlord and no further documents shall be required to effectuate the attornment. Provided Successor becomes legally bound to Tenant in respect of all of Landlord's duties and obligations, Landlord shall have no further liability under the Lease and Tenant shall look solely to the Successor for any subsequent performance due by Landlord. Landlord shall give Tenant prompt written notice of the transfer of the Security Deposit to a Successor. Any attornment agreement required of Tenant shall include language to the effect that Tenant's tenancy shall not be disturbed nor affected by any default under the Deed of Trust provided that Tenant is not in default beyond applicable cure periods under any of the Lease terms and shall otherwise be reasonably acceptable to the Tenant.

17.3. **Estoppel Certificate**. Within ten (10) business days of each request, Tenant agrees to execute estoppel certificates setting forth the facts with respect to its date of occupancy, the Term, the amount of Rent due and date to which Rent is paid, whether or not it has any defense or offsets to the enforcement of the Lease, its knowledge of any default or breach by Landlord, and whether or not this Lease is in full force and effect inclusive of all modifications and/or amendments, copies of which Tenant shall attach to the estoppel certificate. In addition, each guarantor of the Lease, if any, shall execute a document confirming/ratifying its guaranty of the Lease. Should Tenant or, if applicable, a guarantor fail to timely deliver the document, it shall be deemed an Event of Default without any further notice to Tenant.

17.4. **Landlord's Assignment**. If Tenant is notified of Landlord's assignment of this Lease as security for a Deed of Trust and of the name and address of the Lender, Tenant shall not terminate or cancel this Lease for any default by Landlord without first giving notice of its intention to do so to the Lender (the notice to describe in reasonable detail the nature and extent of the default) and affording the Lender the same opportunity (i.e., period of time) to cure the default as given the Landlord under the terms of this Lease.

18. **COVENANT OF TITLE AND QUIET ENJOYMENT**. Landlord covenants and warrants to Tenant that Landlord has full right and lawful authority to enter into this Lease for the Term and that, provided Tenant is not in default beyond any applicable cure period, Tenant's quiet and peaceable enjoyment of the Premises shall not be disturbed by anyone claiming through Landlord.

19. **RULES AND REGULATIONS.**

19.1. **Tenant's Obligations**. Tenant agrees to be bound by the use and other restrictions imposed by the Declaration of Covenants, Conditions, and Restrictions for Keystone Technology Park recorded at Book 2305, Page 555, Durham County Registry,(the "Restrictive Covenants"). Tenant also agrees to be bound by the rules and regulations attached as ***Schedule G*** and by any further rules and regulations or amendments and modifications as may, from time to time, be made by Landlord deemed reasonably necessary for the preservation of good order,

safety, care, cleanliness and economical management of the Premises (together with the Restrictive Covenants, the "Rules & Regulations").

19.2. **Changes**. Notwithstanding the above to the contrary: (a) Tenant shall be provided with written notice of any change in the Rules & Regulations restricting its use of the Premises; (b) Tenant shall be required to comply with only those Rules & Regulations which are applicable to all tenants in the Building; and (c) no change in the Rules & Regulations shall be made that would materially and adversely affect Tenant's ability to use the Premises for Tenant's Permitted Use or would conflict with the terms of this Lease (exclusive of ***Schedule G***).

20. **EASEMENTS, RESTRICTIONS AND RIGHTS-OF-WAY**. The Premises are leased subject to all easements, restrictions and rights-of-way legally affecting the Premises, including, but not limited to the Restrictive Covenants. Landlord represents that, to the best of its knowledge, as of the Execution Date, neither these easements, restrictions, and rights-of-way, nor applicable zoning laws, prohibits the use of the Premises for Tenant's Permitted Use.

21. **LANDLORD'S RIGHT OF ENTRY**. Landlord shall have the right to enter and to grant temporary licenses to enter the Premises at any time and for such lengths of time as Landlord shall deem reasonable to inspect the Premises, to exhibit the Premises to prospective tenants (provided such is limited to the period within one hundred eighty (180) days prior to the Expiration Date or earlier termination of the Lease) or purchasers, to make alterations or repairs to the Premises or to the Building, for any purpose which Landlord shall deem necessary for the operation and maintenance of the Building and the general welfare and comfort of its tenants, or to abate any condition which constitutes a violation of any covenant or condition of this Lease. Except in those instances where Tenant is in default under this Lease, these entries by Landlord shall not in any manner affect Tenant's obligations and covenants under this Lease, and shall not of itself, without affirmative proof of Landlord's negligence or willful misconduct, render Landlord liable for any loss of or damage to the Tenant's property. Except in the case of emergencies or default: (i) Landlord shall attempt to give Tenant reasonable prior oral or written notice of entry; (ii) entries shall be during business hours; (iii) any persons entering the Premises on behalf of Landlord shall be accompanied by one of Tenant's employees; and (iv) Landlord shall make reasonable efforts to minimize interference with Tenant's occupancy of the Premises.

22. **LANDLORD'S LIABILITY**. Notwithstanding anything in this Lease to the contrary, neither Landlord nor its Managing Agent (including their respective owners, officers, and/or employees) shall have any personal liability for any breach of this Lease or any claims relating to the relationship of the parties except to the extent of rental income, proceeds of sale, insurance proceeds, condemnation proceeds and the like received by the exculpated party from the Building after the entry of a judgment in favor of Tenant and Tenant shall otherwise look solely to Landlord's interest in the Building for satisfaction.

23. **IDENTITY OF INTEREST**. The execution of this Lease or the performance of any act pursuant to its provisions shall not be deemed or construed to have the effect of creating between Landlord and Tenant the relationship of principal or agent, or of a partnership or joint venture.

24. **BROKER**. Tenant warrants that it has had no dealings with any broker in connection with the negotiations or execution of this Lease other than the Brokers. Landlord shall be solely responsible for any commissions due Brokers or other brokers contacted by or used by it in connection with the negotiations or execution of this Lease. Tenant agrees to indemnify Landlord and hold Landlord harmless from and against any and all cost, expense, or liability for commissions or other compensation or charges claimed by any broker or agent acting for Tenant with respect to this Lease other than the Brokers. Landlord shall indemnify Tenant and hold Tenant harmless from and against any and all cost, expense, or liability for commissions or other compensation or charges claimed by any broker or agent acting for Landlord with respect to this Lease.

25. **FORCE MAJEURE**. In the event Landlord or Tenant shall be delayed, hindered or prevented from the performance of any act required under this Lease (other than the payment of money) by reason of governmental restrictions, scarcity of labor or materials, strikes, or any other reasons beyond its reasonable control, the performance of the act shall be excused for the period of delay, and the period for the performance of the act shall be extended for the period necessary to complete performance after the end of the period of the delay.

26. **ATTORNEY FEES**. In the event that any legal action or any other action is brought to enforce this Lease, the unsuccessful party in the proceeding shall pay to the successful party the costs of the action, including reasonable attorney's fees. "Reasonable attorneys fees" shall be deemed to be those fees actually charged based upon time actually spent at customary and reasonable charges normally incurred for those types of services, as opposed to any statutory presumption which may then be in effect. This obligation shall survive a termination of the Lease.

27. **HAZARDOUS SUBSTANCES.**

27.1. **Hazardous Substances**. As used in this Lease, the term "Hazardous Substances", shall include, without limitation, flammables, explosives, radioactive materials, asbestos, polychlorinated biphenyles (PCBs), chemicals known to cause cancer or reproductive toxicity, pollutants, contaminants, hazardous wastes, toxic substances or related materials, petroleum and petroleum products and substances declared to be hazardous or toxic under any law or regulation now or hereafter enacted or promulgated by any governmental authority. As used in this Lease, the term "Environmental Laws", shall include any federal, state, or municipal law, ordinance, or regulation, now or subsequently enacted, relating to the existence, use, generation, storage, transportation, or disposal of Hazardous Substances and/or other environmental conditions.

27.2. **Tenant's Restrictions**.

27.2.1. Tenant shall not cause or permit to occur:

(a) Any violation of any Environmental Laws on, under, or about the Premises, or arising from Tenant's use or occupancy of the Premises, including but not limited to, soil and ground water conditions; or

(b) The use, generation, release, manufacture, refining production, processing, storage, or disposal of any Hazardous Substance on, under, or about the Premises, or the transportation to or from the Premises of any Hazardous Substance, except: (i) in *de minimis* quantities necessary for or incidental to the Tenant's normal and customary conduct of business; and/or (ii) in strict compliance with all applicable Environmental Laws.

27.2.2. Tenant shall, at Tenant's own expense: (a) comply with all Environmental Laws ; and (b) make all submissions to, provide all information required by, and comply with all requirements of all governmental authorities (the "Authorities") under the Environmental Laws arising in connection with its obligations under this Section.

27.2.3. Should any Authority or any third party demand that a cleanup plan be prepared and that a cleanup be undertaken because of any deposit, spill, discharge, or other release of Hazardous Substances that occurs at any time from Tenant's use or occupancy of the Premises, then Tenant shall, at Tenant's own expense, prepare and submit the required plans and all related bonds and other financial assurances; and Tenant shall carry out all such cleanup plans.

27.3. **Indemnification**. Tenant shall indemnify, defend, and hold harmless Landlord, the Managing Agent, and their respective officers, directors, beneficiaries, shareholders, members, agents, and employees from all fines, suits, procedures, claims, and actions of every kind, and all costs associated therewith (including reasonable attorneys' and consultants' fees) arising out of or in any way connected with any deposit, spill, discharge, or other release of Hazardous Substances that occurs at or from the Premises during the Term of this Lease, or which arises at any time from Tenant's use or occupancy of the Premises or from Tenant's failure to provide all information, make all submissions, and take all steps required by all Authorities under the Environmental Laws. Tenant's obligations and liabilities under this Section shall survive the termination of this Lease. These provisions relating to Tenant's environmental indemnification obligations shall not apply to events: (i) which occur at any time as a direct result of the acts or omissions of the Landlord, its employees, agents, contractors, successors or assigns; (ii) which arise out of and are directly caused by events occurring before Tenant took possession of the Premises; (iii) which occur after the Landlord, its employees, agents, contractors, successors or assigns have regained possession of the Premises; or (iv) which arise out of acts attributable to parties other than Tenant or its employees, agents, contractors, or invitees. The burden of proving the applicability of an exception to Tenant's indemnification obligation shall be on the Tenant. Once Tenant has proven an exception listed in (i), (ii), or (iii) above is applicable.

Landlord shall indemnify, defend, and hold harmless Tenant and its respective officers, directors, beneficiaries, shareholders, members, agents, and employees from all fines, suits procedures, claims, and actions of every kind, and all costs associated therewith (including reasonable attorneys' and consultants' fees) arising out of or in any way connected with any such deposit, spill, discharge, or other release of Hazardous Substances.

27.4. **Reports**. Tenant represents that none of the chemicals or biohazardous materials it currently intends to use at the Premises, if any, requires an environmental permit for its use. Tenant shall give prior written notice (specifying the chemical/biohazardous material planned to be used) to Landlord if and when Tenant plans to use, at the Premises, any chemical/material that requires an environmental permit. A written or electronic, updated, itemized inventory of all chemicals and biohazardous materials used by Tenant at the Premises, along with copies of all environmental permits obtained by Tenant for its operations at the Premises, will be kept at the Premises. Landlord, at its request, may inspect and/or will be provided with copies of the then current inventory and all of Tenant's environmental permits. Landlord shall keep all non-public information confidential; provided that it shall be permitted to provide copies to its attorneys and its Lender.

28. **ARBITRATION.**

28.1. **Procedure**. If a dispute under this Lease is not resolved by the parties within any applicable grace period or time to cure provided, either party may give notice to the other of its desire to arbitrate the dispute, in which event the dispute shall be settled by binding arbitration by the American Arbitration Association in accord with its then-prevailing rules. The arbitration hearing shall be held in Raleigh, North Carolina. Judgment upon the arbitration award may be entered in any court having jurisdiction. The arbitrators shall have no power to change the Lease provisions. Both parties shall continue performing their Lease obligations pending the award in the arbitration proceeding. The arbitrators shall award the prevailing party reasonable expenses and costs, including reasonable attorneys' fees, plus interest on the amount due at the Interest Rate.

28.2. **Payment**. The losing party shall pay to the prevailing party the amount of the final arbitration award. If payment is not made within ten (10) business days after the date of the arbitration award, then, in addition to any remedies under the law: (a) If Landlord is the prevailing party, it shall have the same remedies as it has for an Event of Default; (b) If Tenant is the prevailing party, it may deduct any remaining unpaid award from its monthly payment of Base Rent, Additional Rent, or other charges otherwise due Landlord; or, if this Lease has terminated, the same remedies as it has at law or in equity, including those for enforcing an award in arbitration.

29. **EFFECT OF TERMINATION**. Upon a termination of the Lease, neither party shall have any further obligations under the Lease except as to: (a) those obligations which have accrued on or before the date of termination and remain unsatisfied; (b) the indemnification obligations set out in the Lease; and/or (c) any obligations which are expressly provided to survive a termination of the Lease.

30. **MISCELLANEOUS.**

30.1. **Interest**. Any sums due to be paid by either party to or for the benefit of the other which are not paid when due shall bear interest from the due date to the date of payment at the Interest Rate.

30.2. **Notices**. Notices and written consents required under this Agreement shall be in writing and shall either be: (a) personally served (deemed received on receipt of delivery); (b) delivered by a nationally recognized overnight express delivery service (deemed received the next business day); or (c) posted by certified United States Mail, postage prepaid, return receipt requested (deemed received three (3) business days after posting); or (d) delivered via telecopier or facsimile transmission (deemed received on receipt of transmission), provided, however, that if such communication is given via telecopier or facsimile transmission, an original counterpart of such communication shall concurrently be sent in either manner specified above. Each document shall be addressed/transmitted as set out in the Term Sheet or at such other address/facsimile number as may from time to time be designated in writing in accordance with this Subsection. Notices may be given on behalf of any party by that party's legal counsel. Notwithstanding anything in this Lease to the contrary: (i) the Statement contemplated by ***Section 4.3*** and any demands for reimbursement may be posted by ordinary United States Mail; and (ii) parties to be copied on any notices need be copied only on notices of default.

30.3. **Recording**. This Lease shall not be recorded, but a memorandum of it may, at the expense of the recording party, be prepared and recorded in the County where the Premises are located. The memorandum shall contain only that information as is necessary to provide adequate record notice of the existence of the Lease, including the parties, the Term, the Premises and whether options to renew or purchase exist. Upon a termination of this Lease prior to the Expiration Date, the Landlord, on its own signature, may record a termination of any recorded memorandum.

30.4. **Additional Acts**. Each party will execute and deliver all other additional and necessary instruments and documents and do all other acts and things as may be reasonably necessary to more fully effectuate this Lease.

30.5. **Entire Agreement**. This Lease (including the Term Sheet and all attached Schedules) shall constitute the entire agreement of the parties. All prior agreements between the parties, whether oral or written, are merged into this document and shall be of no force and effect. This Lease cannot be changed, modified or discharged other than by a written agreement signed by the party against whom enforcement of the change, modification or discharge is sought.

30.6. **Binding Effect**. Each and all of the covenants terms, provisions and agreements of this document shall be binding upon and inure to the benefit of the parties and, to the extent permitted by this Lease, their respective heirs, executors, administrators, legal representatives, successors and assigns.

30.7. **Construction**. No provision of this Lease shall be construed against or interpreted to the disadvantage of any party by any court or other governmental or judicial authority by reason of that party's having or being deemed to have prepared or imposed that provision. Wherever from the context it appears appropriate, each term stated in either the singular or plural shall include the singular and plural, and pronouns stated in either the masculine, the feminine or the neuter gender shall include the masculine, feminine and neuter.

30.8. **Counterparts**. This Lease may be executed in any number of counterparts with the same effect as if all parties had all signed the same document. All counterparts shall be construed together and shall constitute one agreement.

30.9. **Waiver**. The delay or failure of either party to seek redress for violation of or to insist upon the strict performance of any covenant or condition of this Lease shall not prevent a prior or subsequent act, which would have originally constituted a violation, from having the effect of an original violation. Any waiver by a party of any breach or default by the other must be in writing and will be effective only to the extent specifically set forth in that writing.

30.10. **Headings**. The headings in this Lease are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent or intent of this Agreement or any of its provisions.

30.11. **Severability**. Every provision of this Lease is intended to be severable. If any term or provision is illegal or invalid for any reason whatsoever, that illegality or invalidity shall not affect the validity of the remainder of the Lease.

30.12. **Governing Law/Jurisdiction**. This Agreement shall be governed by its terms and the laws of the State of North Carolina. The parties agree that this Agreement shall be deemed executed and completed in North Carolina, that this Agreement shall be performed in North Carolina, and, except where arbitration is specifically provided for in this Lease, that the courts of North Carolina shall have exclusive jurisdiction over any disputes as to the terms of this Agreement. By the signatures below, the parties consent to the exclusive, personal jurisdiction by the courts of North Carolina and further, waive any objection thereto. Venue shall be Wake County, North Carolina.

30.13. **Time**. Time is of the essence in connection with each and every provision of this Lease. If any time period under this Lease ends on a Saturday, Sunday, or any day on which the state courts of Durham County, North Carolina are closed, that time period shall be extended until the next business day.

31. **ADDITIONAL LEASE PROVISIONS**. Additional provisions of this Lease are contained in the Schedules attached which are incorporated by this reference. These additional provisions shall control if in conflict with any of the foregoing provisions of this Lease.

IN WITNESS WHEREOF, the undersigned have executed, sealed and delivered this Agreement as of the date first above written.

LANDLORD:

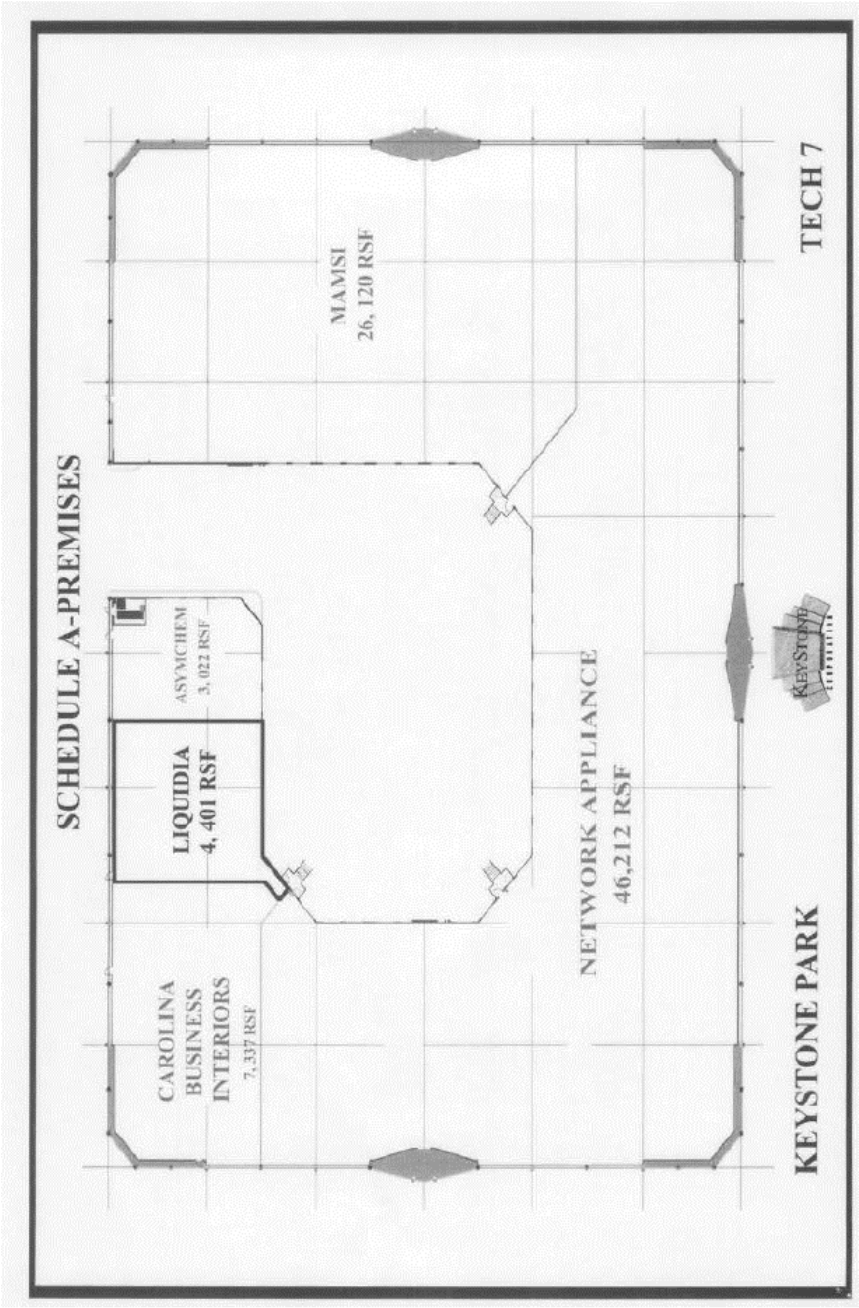
TECHNOLOGY VII-IX, LLC
a North Carolina limited liability company

By: /s/ [illegible]
Manager

TENANT:

LIQUIDIA TECHNOLOGIES, INC.,
a Delaware corporation

By: /s/ Bruce Boucher
Name/Title: Bruce Boucher; President



SCHEDULE B
LANDLORD IMPROVEMENTS
(Technology VII Building)

Building Size:

- 87,269 SF gross (drip line to drip line)
- 83,260 SF net useable space
- Clear ceiling height 16’-0

Site work:

- Clear and grade
- Storm drainage
- Water and sewer
- Curb & gutter and asphalt pavement
- Turn-down walks at perimeter of building pavement

Building Elevations:

- 9’-0 high storefronts with 1’ -6 high exterior drywall (texture paint) header
- Architectural Spandrel Panels which are ¾” deep
- Drywall soffits
- Scuppers and downspouts
- Overall height of the building is +21’
- Spandrel panels are texture painted
- Round (1’ -6”) concrete columns with texture painted finish

Floor Slab Foundations:

- Footings are l’-0 below finish floor
- Lug at storefronts are l’-4” deep and l’-0 wide
- 5” slab with a 4” stone base
- All concrete is 3,000 PSI
- Soil treatment is included

- 6 x 6 10/10 wire mesh
- All control joints are saw cut
- No joint filler
- No floor sealer
- 4’-0 wide x 1 2” thick perimeter insulation

Architectural Tilt Panels:

- Panels are 5 1/2” thick concrete (3,000 PSI)
- Reinforced with steel
- ¾” deep reveals
- All panels are textured finish
- All panel joints are caulked

Structural and Miscellaneous Steel:

- Joist and girder roof support
- Tubular columns
- Type >B primer painted, roof deck
- Tilt panels are load bearing
- 1 ea roof access ladder
- Dock stairs
- All structural design is included for foundations, slab, columns, tilt panels and structural steel.
- Dumpster enclosure is included
- Pipe bollards

Roofing:

- Roof insulation to be 2” - R=14.3, Polyisocyanurate loose laid over metal deck
- Ballasted (stone #4) 0.045 black EPDM system
- 10 year manufacturers warranty
- Parapet walls to have termination bar
- Sheet metal to be mill finished aluminum
- All panel joints will be caulked on both sides (standard caulk color)

Door:

- 3 x 7 Hollow Metal Doors with standard hardware
- Dock bumpers

Storefront System:

Glass:

- 1/4” LOF blue-green tempered indoors
- 1” LOF blue-green insulated

Aluminum Frames:

- 2” X 4 1/2” thermal
- Clear Anodized finish

Storefront doors:

- Head receptor for top of storefront
- Factonr thermally broken pan flashing for bottom of storefront system

Drywall and Framing:

- Head of window (l’-6) and soffits to have meral framing and exterior drywall
- Drywall to be textured painted
- Insulation in head framing and on soffit
- Drywall and metal framing includes the soffit, fascia, riser room only Painting:
- Exterior panels and columns to have one coat Triko-Plex coarse texture
- All hollow metal is painted
- Downspouts and scupper heads to have two coats exterior enamel

Plumbing:

- 6” sewer trunk line
- Piping to be schedule 40 PVC - DWC
- 1 ea. 2” domestic feeder lines stubbed from 5’-0 outside and run around exterior building perimeter
- 2 ea. wall hydrants

HVAC:

- Not included

Sprinkler:

- Starting at l’-0 above finish floor
- 2 ea. wet pipe systems
- Ordinary hazard systems throughout
- Water supply based on:
- Static- 125 PSI
- Residual - 100 PSI
- Flow 1800GPM

Electrical:

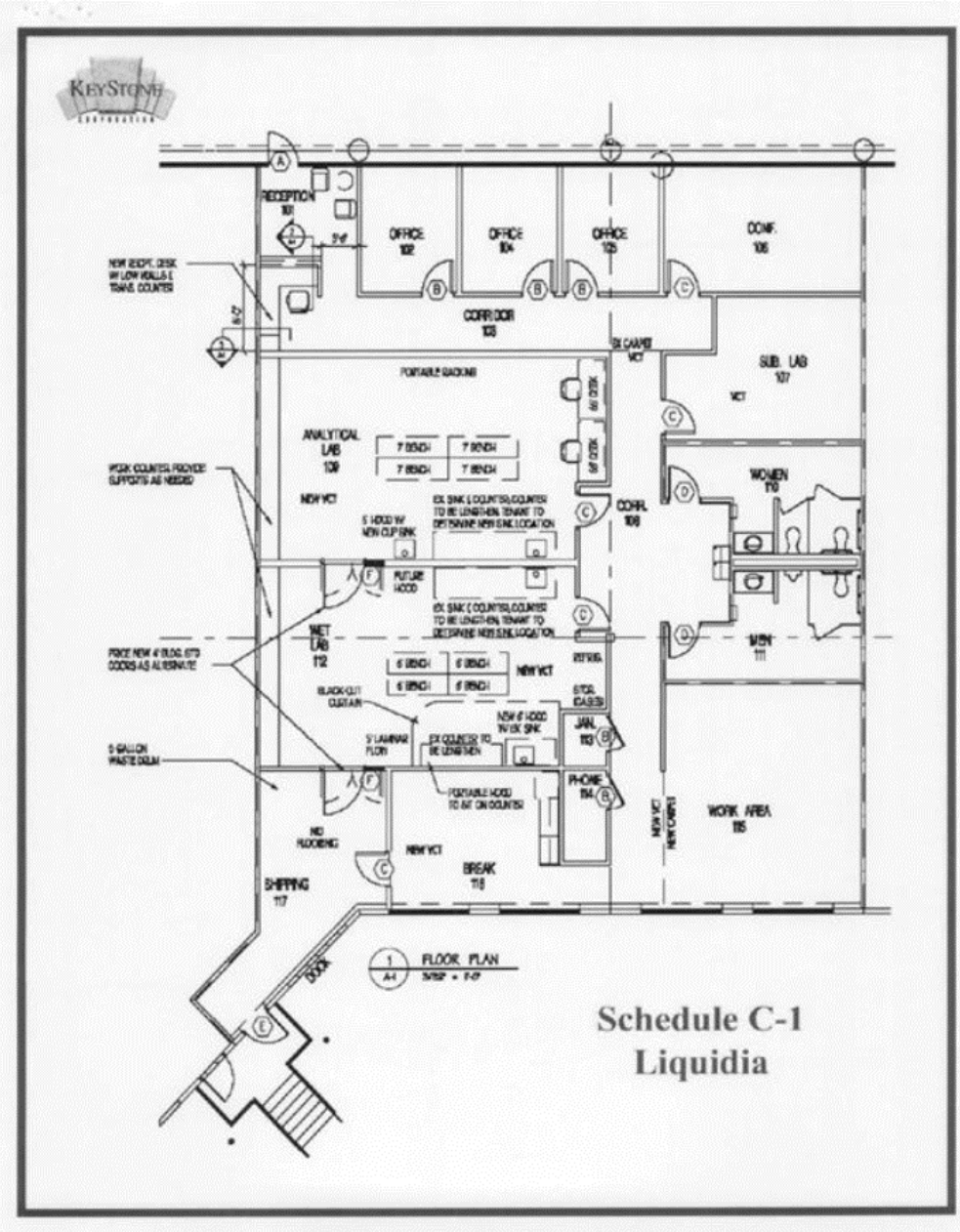
- 2 ea. electrical gutters
- 200 amp house panel (480 volt)

- Soffit lights
- Alarm system with dialer
- 4” PVC conduits for telephone to property line
- 1 ea. 15 KVA dry type transformer
- 400 watt exterior wallpacks
- Exterior up-lights
- 1 ea. quad light
- Exit lights
- Emergency lights
- Exterior lights controlled by time clock
- Design included

SCHEDULE C
ADDITIONAL TENANT IMPROVEMENTS

The Plans and Specifications for the Additional Tenant Improvements shall be mutually approved by the parties (which approval shall not be unreasonably withheld, delayed, or conditioned). A copy of the approved Plans and Specifications for the Additional Tenant Improvements shall be initialed by each party and attached to this Lease subsequent to its execution by the parties. If, despite reasonable efforts, the parties are unable to agree on the Plans and Specifications within thirty (30) days after the Execution Date, either party may terminate this Lease by giving Landlord written notice of termination to the other.

Prior to the Commencement Date: (i) Landlord will provide carpet, VCT and paint and other repairs as specified in the construction quote provided by Spec Con General Contractors as dated March 8, 2005, the total amount of which is estimated to be $8,293.00; and (ii) Landlord shall repair and replace the missing water heater pan drain line on the lavatory drain in the women’s restroom.



SCHEDULE D
BASE RENT SCHEDULE

LEASE PERIOD (Mos.)*	INSTALLMENT AMOUNT**	PAYMENT AMOUNT**

01 - 03	$3,850.88/mo.	$ 0.00/mo.
04 - 15	$3,850.88/mo.	$3,850.88/mo.
16 - 27	$3,966.40/mo.	$3,966.40/mo.
28 - 39	$4,085.39/mo.	$4,085.39/mo.
40 - 51	$4,207.96/mo.	$4,207.96/mo.
52 - 63***	$4,334.19/mo.	$4,334.19/mo.
64 — 75	$4,464.22/mo.	$4,464.22/mo.
76 - 87	$4,598.15/mo.	$4,598.15/mo.

** The "Lease Periods " are calculated from the end of the Interim Period, if any, and if none, from the Commencement Dale. Base Rent for each day of the Interim Period, if any, shall be the Per Diem Rate.*

*** The Installment Amounts reflect the stated amount of Base Rent payment to be paid by Tenant each month of the Term and the Payment Amounts reflect the actual amount of Base Rent payment to be paid by Tenant each month of the Term after factoring in the rent abatement agreed to by the parties (collectively, the "Free Rent"). This Free Rent is being given by Landlord in anticipation that Tenant remain in possession of the Premises for the entire original Term and faithfully fulfill its obligations, as Tenant, under the Lease. In the event Tenant defaults under the Lease, which is not timely cured as provided, prior to the expiration of the entire original Term, then a proportional amount of the Free Rent shall be deemed forfeited and Landlord shall be entitled to recover that forfeited amount from Tenant, in addition to other rights and remedies available to it. The forfeited amount of the Free Rent shall be calculated by multiplying the Free Rent by a fraction, the numerator being the number of months remaining in the original Term as of the date of the Tenant default and the denominator being the total number of months in the original Term.*

***(Note: Rent beyond this Lease Period is applicable only if Tenant timely and properly exercises the Renewal Option (as later defined).)*

SCHEDULE E
CONSTRUCTION SCHEDULE

Landlord shall use commercially reasonable efforts to cause the Additional Tenant Improvements to be "Substantially Completed" by the Target Commencement Date and, in any event, by the Outside Commencement Date. The parties, however, acknowledge that delays attributable to Tenant before execution of this Lease will prevent Landlord from "Substantially Completing" the Additional Tenant Improvements by the Commencement Date. Each of these dates shall automatically be extended for the following (the "Permitted Delays"): (a) Tenant delays (including, but not limited to, Tenant's failure to provide Landlord with every thing reasonably necessary to enable Landlord to complete the construction drawings for the Premises by the Construction Drawings Completion Date, Tenant's failure to meet the Budget Approval Date, and Tenant change orders); (b) each day in excess of three (3) weeks, after Landlord s application, that it takes to obtain the building permits; and (c) delays in construction caused by weather. If Landlord fails to meet the Outside Commencement Date, other than because of the Permitted Delays, Tenant shall have the right to terminate this Lease upon giving Landlord written notice of termination at any time prior to its taking possession of the Premises.

SCHEDULE F
SATELLITE ANTENNA

Subject to the terms of this Schedule, during the Term Tenant shall have the right to install and operate on the roof of the Building (the "Roof), and connect to its Premises, a microwave, satellite or other antenna communications system that transmits or receives signals to or from other communications installations located off-site (the "Satellite Antenna"). The Tenant's rights to install and operate the Satellite Antenna are expressly subject to the following conditions:

(a) Tenant shall give Landlord not less than thirty (30) days' advance written notice of Tenant's intent to exercise its rights under this Schedule. The notice shall include the plans and specs for the construction and location of the Satellite Antenna, which shall be subject to Landlord's prior approval. As a condition of its approval, Landlord may, in its discretion, require Tenant, at Tenant's sole expense, to adequately screen the Satellite Antenna from view (the design of the screening to be subject to Landlord's prior written approval). The installation (including all structural reinforcement, framing and waterproofing) shall be performed subject to the provisions of ***Section 7*** of this Lease and shall not, in any event, violate or vitiate any warranties relating to the Roof.

(b) Tenant, at its expense, shall be solely responsible for the installation, operation, and maintenance of the Satellite Antenna and any required screening and for obtaining and maintaining all operating permits and governmental approvals and otherwise complying with all applicable legal requirements (including any requirements of the Federal Communications Commission) relating to the Satellite Antenna. Tenant shall also promptly repair any damage to the Roof, Building, Common Areas and/or Premises caused by the installation, operation or maintenance of the Satellite Antenna.

(c) The Satellite Antenna shall remain Tenant's property throughout the Term and Tenant shall maintain full replacement value insurance to protect its interest. Tenant shall also be responsible for any additional insurance and/or increase in insurance premiums incurred by Landlord as a result of the installation of the Satellite Antenna.

(d) Tenant's access to the Roof shall be subject to such reasonable conditions imposed by Landlord.

(e) Tenant's rights under this Schedule shall not interfere with the use or operation (including the reception and transmission of signals) of other satellite antenna, microwave dishes or other communications equipment previously installed on the Roof or otherwise interfere with the other tenants use of their respective premises.

(f) Landlord, at its expense (except where necessitated by any applicable legal requirement or governmental authority, where it will be Tenant's expense), shall have the right, on not less than five (5) days prior written notice (except in the event of an emergency, in which event no notice shall be required) to relocate the Satellite Antenna; provided the reception of communication transmissions shall not be of any material lesser quality because of such relocation. Tenant shall cooperate with Landlord in all reasonable respects relating to any such relocation.

(g) Upon termination of the Lease, Tenant, at its sole expense, shall remove the Satellite Antenna and any related conduits and cables and repair any resulting damage to the Roof, Building, Common Areas and/or Premises (whether caused by installation or removal). This obligation shall survive a termination of the Lease.

(h) The rights granted under this Schedule are not separately assignable; but may only be assigned in connection with a permitted assignment of this Lease.

Whenever Landlord's consent or approval is required under this Schedule, Landlord agrees that such consent shall not be unreasonably withheld, conditioned or delayed.

SCHEDULE G
RULES AND REGULATIONS

Tenant shall faithfully observe and comply with the following Rules and Regulations. Landlord shall not be responsible to Tenant for the nonperformance of any of said Rules and Regulations by or otherwise with respect to the acts or omissions of any other tenants or occupants of the land.

1. Tenant shall not alter any lock or install any new or additional locks or bolts on any doors or windows of the Premises without obtaining Landlord's prior written consent. Tenant shall bear the cost of any lock changes or repairs required by Tenant. Two keys will be furnished by Landlord for the Premises, and any additional keys required by Tenant must be obtained from Landlord at a reasonable cost to be established by Landlord or, at Tenant's option, obtained by Tenant at Tenant's expense.

2. All doors opening to public corridors shall be kept closed at all times except for normal ingress and egress to the Premises. The foregoing sentence shall not be applicable to doors of the Building that are entirely contained within the Premises.

3. Landlord reserves the right to close and keep locked all entrance and exit doors of the Building during such hours as are customary for comparable buildings. Tenant, its employees, and agents must be sure that the doors to the Building are securely closed and locked when leaving the Premises if it is after the normal hours of business for the Building. Any tenant, its employees, agents, or any other persons entering or leaving the Building at any time when it is so locked, or any time when it is considered to be after normal business hours for the Building, may be required to sign the Building register. Access to the Building may be refused unless the person seeking access has proper identification or has a previously arranged pass for access to the Building. Landlord and its agents shall in no case be liable for damages for any error with regard to the admission to or exclusion from the Building of any person. In case of invasion, mob, riot, public excitement, or other commotion, Landlord reserves the right to prevent access to the Building or the land during the continuance thereof by any means it deems appropriate for the safety and protection of life and property.

4. All moving activity into or out of the Building and all construction activity shall be scheduled with Landlord and done only at such time and in such manner as Landlord designates. Landlord shall have the right to prescribe the weight, size and position of all safes and other heavy property brought into the Building and also the times and manner of moving the same in and out of the Building.

Safes and other heavy objects shall, if considered necessary by Landlord, stand on supports of such thickness as is necessary to properly distribute the weight. Landlord will not be responsible for loss of or damage to any such safe or property in any case. Any damage to any part of the Building, its contents, occupants or visitors by moving or maintaining any such safe or other property shall be the sole responsibility and expense of Tenant.

5. No furniture, packages, supplies, equipment or merchandise will be received in the Building or carried up or down in the elevators, except between such hours and in such specific elevator as shall be designated by Landlord.

6. The requirements of Tenant will be attended to only upon application to the Managing Agent or at such other entity designated by Landlord. Employees of Landlord shall not perform any work or do anything outside their regular duties unless under special instructions from Landlord.

7. Tenant shall not disturb, solicit, or canvass any occupant of the Building and shall cooperate with Landlord and its agents of Landlord to prevent the same.

8. The toilet rooms, urinals, wash bowls and other apparatus shall not be used for any purpose other than that for which they were constructed, and no foreign substance of any kind whatsoever shall be thrown therein. The expense of any breakage, stoppage or damage resulting from the violation of this rule shall be borne by the tenant who, or whose employees or agents, shall have caused it.

9. Tenant shall not overload (i.e., exceed 150 pounds per sq. ft.) the floor of the Premises. Except for the installation of customary pictures, white boards, and similar wall hangings, Tenant shall not mark, drive nails or

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screws, or drill into the partitions, woodwork or plaster or in any way deface the Premises or any part thereof without Landlord's prior written consent.

10. Except for a reasonable number vending machines intended for the sole use of Tenant's employees and invitees, no vending machine or machines other than fractional horsepower office machines shall be installed, maintained or operated upon the Premises without the written consent of Landlord.

11. Except as reasonably required in connection with Tenant's customary operations and then only in accordance with all applicable governmental rules and regulations, Tenant shall not bring, use, or store in or on the Premises or the Building any kerosene, gasoline or other inflammable or combustible fluid or material or any hazardous or toxic materials, or any other materials or substances that might pose a health or safety risk. Tenant shall not bring, or permit any of its employees or agents to bring, firearms, ammunition or other weapons upon the Premises or the Building.

12. Tenant shall not without the prior written consent of Landlord use any method of heating or air conditioning other than that supplied by Landlord.

13. Except as reasonably required in connection with Tenant's customary operations and then only in accordance with all applicable governmental rules and regulations, Tenant shall not use, keep or permit to be used or kept, any foul or noxious gas or substance in or on the Premises. Tenant shall not permit or allow the Premises to be occupied or used in a manner offensive or objectionable to Landlord or other occupants of the Building by reason of noise, odors, or vibrations, or interfere in any way with other tenants or those having business therein. Landlord shall have the right to prohibit the smoking of any tobacco products in the Building, including the Premises, and may, without any obligation to do so, designate exclusive areas for the smoking of tobacco products.

14. Except for animals assisting the handicapped, Tenant shall not bring into or keep within the Building or the Premises any animals, birds, bicycles or other vehicles.

15. Except for microwave cooking for the personal use of Tenant's employees, no cooking shall be done or permitted on the Premises, nor shall the Premises be used for the storage of merchandise, for lodging or for any improper, objectionable or immoral purposes. Notwithstanding the foregoing, Underwriters' Laboratory-approved equipment and microwave ovens may be used in the Premises for heating food and brewing coffee, tea, hot chocolate and similar beverages for employees and visitors, provided that such use is in accordance with all applicable federal, state and city laws, codes, ordinances, rules and regulations.

16. Landlord will approve where and how telephone and telecommunication wiring and cabling are to be introduced to the Premises. No boring or cutting for wires shall be allowed without the consent of Landlord. The location of telephone, call boxes and other office equipment affixed to the Premises shall be subject to the approval of Landlord.

17. Landlord reserves the right to exclude or expel from the Building and Common Areas any person who, in the judgment of Landlord, is intoxicated or under the influence of liquor or drugs, or who shall in any manner do any act in violation of any of these Rules and Regulations.

18. Tenant, its employees and agents shall not loiter in or on the entrances, corridors, sidewalks, lobbies, halls, stairways, elevators, or any common areas of the Building for the purpose of smoking tobacco products or for any other purpose, nor in any way obstruct such areas, and shall use them only as a means of ingress and egress for the Premises.

19. Tenant shall store all its trash and garbage within the interior of the Premises. No material shall be placed in the trash boxes or receptacles if such material is of such nature that it may not be disposed of in the ordinary and customary manner of removing and disposing of trash in the vicinity of the Building without violation of any law or ordinance governing such disposal. All trash, garbage and refuse disposal shall be made only through entry-ways and elevators provided for such purposes at such times as Landlord shall designate. If the Premises is or becomes infested with vermin as a result of the use or any misuse or neglect of the Premises by Tenant, its agents, servants, employees, contractors, visitors or licensees, Tenant shall forthwith, at Tenant's expense, cause the

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Premises to be exterminated from time to time to the satisfaction of Landlord and shall employ such licensed exterminators as shall be approved in writing in advance by Landlord.

20. Tenant shall comply with all safety, fire protection and evacuation procedures and regulations established by Landlord or any governmental agency.

21. Tenant shall assume any and all responsibility for protecting the Premises from theft, robbery and pilferage, which includes keeping doors locked and other means of entry to the Premises closed.

22. No awnings or other projection shall be attached to the outside walls of the Building without the prior written consent of Landlord. No curtains, blinds, shades or screens shall be attached to or hung in, or used in connection with, any window or door of the Premises without the prior written consent of Landlord. All electrical ceiling fixtures hung in offices or spaces along the perimeter of the Building must be fluorescent and/or of a quality, type, design and bulb color approved by Landlord. Tenant shall abide by Landlord's regulations concerning the opening and closing of window coverings which are attached to the windows in the Premises, if any, which have a view of any interior portion of the Building or the common areas of the Building.

23. The sashes, sash doors, skylights, windows, and doors that reflect or admit light and air into the halls, passageways or other public places in the Building shall not be covered or obstructed by Tenant, nor shall any bottles, parcels or other articles be placed on the window sills.

24. Tenant must comply with requests by Landlord concerning the informing of their employees of items of importance to Landlord.

25. Tenant shall not use in any space or in the public halls of the Building any hand trucks except those equipped with rubber tires and side guards or such other material-handling equipment as Landlord may approve. Tenant shall not use or permit the use of "hard tire" trucks in the Premises or Building. Tenant shall not bring any other vehicles of any kind into the Building. Notwithstanding the preceding to the contrary, Tenant shall be permitted to bring bicycles, mopeds and scooters into the storage areas within the Premises (accessed through the loading docks only) for the purpose of daily storage of Tenant's employees' alternative means of transportation.

26. Without the written consent of Landlord, Tenant shall not use the name or a likeness of the Building in connection with or in promoting or advertising the business of Tenant except as Tenant's address; provided, however, that Tenant shall be permitted to use the name or a likeness of the Building for providing directions on a website or similar material or a limited scope picture for marketing purposes in the usual course of business that includes only the Premises.

Subject to the terms of the Lease, Landlord reserves the right at any time to change or rescind any one or more of these Rules and Regulations, or to make such other and further reasonable Rules and Regulations as in Landlord's judgment may from time to time be necessary for the management, safety, care and cleanliness of the Premises, Building, and the land, and for the preservation of good order therein, as well as for the convenience of other occupants and tenants therein. Landlord may waive any one or more of these Rules and Regulations for the benefit of any particular tenants, but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of any other tenant, nor prevent Landlord from thereafter enforcing any such Rules or Regulations against any or all tenants of the Building. Tenant shall be deemed to have read these Rules and Regulations and to have agreed to abide by them as a condition of its occupancy of the Premises. Whenever Landlord's consent is required under this Schedule, Landlord agrees that such consent shall not be unreasonably withheld, conditioned or delayed.

SCHEDULE H
RENEWAL OPTION

Provided Tenant complies with all terms and conditions of the Lease and is not, at the time of exercise, in default beyond any applicable cure period (provided that any default still within the cure period is subsequently cured within the applicable cure period), Tenant shall have an option to renew the Lease (the "Renewal Option"), for an additional two (2) years (the "Renewal Term"). The Renewal Term shall be on the same terms and conditions of this Lease, including the Base Rent as provided in Schedule D. If Tenant elects to exercise the Renewal Option, it shall give written notice to Landlord at least two hundred seventy (270) days prior to the Expiration Date. Provided the Renewal Option has been properly exercised, wherever the term "Term" appears in this Lease, it shall include the Renewal Term and the Expiration Date shall be extended for the length of the Renewal Term. This Renewal Option is personal to the original Tenant and shall automatically expire on an assignment of this Lease or a subletting of the Premises by the original Tenant, other than as permitted under ***Section 15.6*** of this Lease.

SCHEDULE I
EARLY TERMINATION RIGHTS

Notwithstanding anything in the Lease to the contrary, upon not less than one years' advance written notice to Landlord (the "Termination Notice") and payment to Landlord of the Termination Fee (as defined below), Tenant shall have the absolute right to terminate this Lease as of the end of the thirty- sixth (36th) month of the Term (the "Termination Date"). For the Termination Notice to be effective, the Termination Notice must specify the Termination Date (by which the Tenant must have completely vacated the Premises) and be accompanied by the Termination Fee. The provisions of ***Sections 14 & 29*** shall nevertheless apply to a termination pursuant to the above. The right under this Schedule is personal to the original Tenant under this Lease, is not assignable to any third parties under any circumstances, and shall automatically expire on an assignment of this Lease or a subletting of the Premises by the original Tenant.

For purposes of this Lease, the "Termination Fee" shall mean the sum of the then-unamortized portion of the: (i) the Tenant Upfit Allowance, (ii) the Free Rent, and (iii) the broker commissions paid by Landlord to the Brokers as a result of this Lease (not, in the aggregate to exceed 6%). For purposes of determining the Termination Fee: (a) the Tenant Upfit Allowance, the Free Rent, and the broker commissions shall be amortized over a period of sixty (60) months commencing three (3) months after the end of the Interim Period, if any, or, if none, after the Commencement Date; (b) the unamortized amount shall be calculated as of the Termination Date; and (c) an interest rate of eight percent (8%) shall be used.

STATE OF NORTH CAROLINA

DURHAM COUNTY LEASE MODIFICATION AGREEMENT NO. 1

THIS LEASE MODIFICATION AGREEMENT NO. 1 (this "Agreement") is made and entered into as of this day of , 2010 (the "Execution Date"), by and between **GRE Keystone Technology Park Two LLC**, a Delaware limited liability company authorized to conduct business in the State of North Carolina ("Landlord") and successor by acquisition of Technology VII-IX, LLC, a North Carolina limited liability company, and **Liquidia Technologies, Inc.**, a Delaware corporation authorized to conduct business in the State of North Carolina ("Tenant").

WITNESSETH:

WHEREAS, Technology VII-IX, a North Carolina limited liability company ("Technology VII-IX") and Tenant entered into that certain Lease Agreement with an Execution Date of April 14, 2005 (the "Lease"), pursuant to which Tenant leased approximately 4,401 rentable square feet (the "Premises") in the building known as Technology VII, Keystone Technology Park and located at 627 Davis Drive, Durham, North Carolina 27713 (the "Building"). (The Lease is incorporated herein by reference in its entirety. Any capitalized term used and not otherwise defined herein shall have the meaning ascribed to it in the Lease.); and

WHEREAS, on or about January 31, 2006, Landlord acquired all of the right, title and interest in and to the Lease from Technology VII-IX; and

WHEREAS, the Lease Term Sheet sets forth an Expiration Date of sixty-three months from the Commencement Date (*i.e*, August 31, 2010); and

WHEREAS, Schedule H of the Lease (Renewal Option) sets forth an option for Tenant to renew the Term of the Lease for two (2) additional years, upon the terms and conditions contained therein, and Tenant has exercised its Renewal Option; and

WHEREAS, Landlord and Tenant desire to amend the Lease by extending the Term of the Lease for two(2) years as set forth in the Lease, upon the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the premises, rent, mutual covenants and conditions contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. Landlord Name. The Lease is hereby amended to modify Landlord's name to be "GRE Keystone Technology Park Two LLC, a Delaware limited liability company". The reference in the Lease Term Sheet and the Lease with respect to "Technology VII-IX, LLC a North Carolina limited liability company" shall hereafter mean "GRE Keystone Technology Park Two LLC, a Delaware limited liability company". In addition, the references to Landlord's address as set forth in the Lease Term Sheet and Lease are hereby changed to the following:

Landlord's name and address **except for** rental payments:
GRE Keystone Technology Park Two LLC
c/o Capital Associates
1255 Crescent Green, Suite 300
Cary, NC 27518

Landlord's name and address **for rental payments:**
GRE Keystone Technology Park Two LLC
P.O. Box 277346
Atlanta, GA 30384-7346

2. Lease Term Sheet. Effective as of the Execution Date, the Lease is hereby extended for a period of two (2) years. The time period from September 1, 2010, through August 31, 2012, is hereby deemed to be the

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"Renewal Term". Effective as of the Execution Date, the Lease and the Lease Term Sheet are hereby amended by changing the Expiration Date of the Lease to be "August 31, 2012".

3. Base Rent. Landlord and Tenant specifically acknowledge and agree that the Base Rent during the Renewal Term shall not be as set forth in Schedule D of the Lease (Base Rent Schedule) but shall be reset to equal Ten Dollars ($10.00) per square foot, per annum with regard to months 64 through 75 of the Term (*i.e.*, $3,667.50 per month or $44,010.00 annually) and Ten Dollars and Thirty Cents ($10.30) per square foot, per annum for months 76 through 87 of the Term (*i.e.*, $3,777.53 per month or $45,330.36 annually), and Schedule D and the Lease are amended accordingly. In addition to the foregoing, Tenant shall continue to be liable for all Additional Rent during the Renewal Term, as set forth in the Lease.

4. Tenant Improvements. Tenant hereby expressly acknowledges and agrees that Landlord is not and shall not be obligated to Tenant to provide any improvements or other changes to the Premises prior to or during the Renewal Term.

5. Renewal Option. Effective as of the Execution Date, Tenant has renewed the Term of the Lease as set forth herein and therefore, the Renewal Option set forth in Schedule H of the Lease is no longer of any force or effect, and the Lease is amended accordingly.

6. Brokerage/Indemnification. Landlord and Tenant each represent to the other that they, respectively, have had no dealings with any real estate broker or agent in connection with the negotiation of this Agreement except for Capital Associates Management, LLC, Landlord's broker, and Cassidy Turley, Tenant's broker, and that they, respectively, know of no other real estate broker or agent who is entitled to a commission or finder's fee in connection with this Agreement. Each party shall indemnify, protect, defend and hold harmless the other party against all claims, demands, losses, liabilities, lawsuits, judgments, and costs and expenses (including, but not limited to, reasonable attorneys' fees) for any leasing commission, finder's fee or equivalent compensation alleged to be owed on

account of dealings with any other than the above-stated real estate brokers by the party from whom indemnification is sought. Landlord shall pay the commissions or fees due with respect to the extension of the Term as set forth herein to the above-stated Landlord's broker. Landlord's broker shall then pay Tenant's broker.

7. Affirmation of Lease. Except as expressly modified herein, the original terms and conditions of the Lease shall remain in lull force and effect.

8. Binding Agreement. Upon execution by Tenant, this Agreement shall be binding upon Tenant, its legal representatives and successors, and, to the extent assignment may be approved by Landlord hereunder, Tenant's assigns. Upon execution by Landlord, this Agreement shall be binding upon Landlord, its legal representatives, successors and assigns. This Agreement shall inure to the benefit of Landlord and Tenant, and their respective representatives, successors and permitted assigns.

9. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have caused this Agreement to be executed by their respective duly authorized representatives as of the day and year first above written.

LANDLORD:
GRE Keystone Technology Park Two LLC, a Delaware limited liability company

By: GRE Keystone Technology Park Holdings LLC, a Delaware limited liability company, its Sole Member

By: Capital Associates Management, LLC, a North Carolina limited liability company, acting as Investment Manager for GRE Keystone Technology Park Holdings LLC

By: /s/ Stephen P. Porterfield
Stephen P. Porterfield, Delegate Manager

TENANT:
Liquidia Technologies, Inc., a Delaware corporation

By: /s/ Bruce W. Boucher
Name: Bruce W. Boucher
Title: President

SECOND AMENDMENT TO LEASE AGREEMENT

THIS SECOND AMENDMENT TO LEASE AGREEMENT (this "***Amendment***") is entered into between **LCFRE KEYSTONE TECHNOLOGY PARK, L.P.**, a Delaware limited partnership ("***Landlord***"), and **LIQUIDIA TECHNOLOGIES, INC.**, a Delaware corporation ("***Tenant***" with reference to the following:

A. Technology VII-IX, LLC (predecessor-in-interest to Landlord) and Tenant entered into that certain Lease Agreement dated April 14, 2005; GRE Keystone Technology Park Two LLC and Tenant entered into that certain Lease Modification Agreement No. 1 dated June 11, 2010 (as amended, the "***Lease***"), covering approximately 4,401 rentable square feet known as Suite 500 (the "***Premises***") of Keystone Technology Park Building VII. 627 Davis Drive, Durham, North Carolina (the "***Building***").

B. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **Second Extension Period**. The term of the Lease is extended for a period of approximately 12 months (the "***Second Extension Period***") commencing on September 1, 2012, and expiring on August 31, 2013. Tenant acknowledges that it has no further renewal, expansion or similar rights or options under the Lease, all of which are hereby deleted and of no further force and effect.

2. **Base Rent**. Commencing on September 1, 2012 and continuing through the Second Extension Period. Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent the amounts set forth in the following rent schedule, plus any applicable tax thereon:

FROM	THROUGH	RATE PER RSF	MONTHLY BASE RENT
September 1,2012	August 31.2013	$ 11.42*	$ 4,188.29

*Subject to **Section 5,** 50% of monthly Base Rent for the month of September 2012 shall abate.

3. **Additional Rent**. Tenant shall continue to pay Tenant's Proportionate Share of Expenses as set forth in **Section 4** of the Lease.

4. **Condition of Premises**. Tenant accepts the Premises in its "as-is" condition. Tenant acknowledges that Landlord has not undertaken to perform any modification, alteration or improvement to the Premises. **TENANT WAIVES (i) ANY CLAIMS DUE TO DEFECTS IN THE PREMISES; AND (ii) ALL EXPRESS AND IMPLIED WARRANTIES OF SUITABILITY, HABITABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE**. Tenant waives the right to terminate the Lease due to the condition of the Premises.

5. **Abated Rent**. If this Amendment provides for a postponement of any Base Rent or payment of Operating Expenses, a period of "free" rent, reduced rent, early occupancy, or other rent concession, such postponed rent, "free" rent, reduced rent or other rent concession shall be referred to herein as the "***Abated Rent***". Tenant shall be credited with having paid all of the Abated Rent on the expiration of the Second Extension Period only if Tenant has fully, faithfully, and punctually performed all of Tenant's obligations hereunder, including the payment of all Base Rent and Operating Expenses (other than the Abated Rent) and all other monetary' obligations and the surrender of the Premises in the physical condition required by this Amendment. Tenant acknowledges that its right to receive credit for the Abated Rent is absolutely conditioned upon Tenant's full, faithful and punctual performance of its obligations under this Amendment. If an Event of Default shall occur, the Abated Rent shall immediately become due and payable in full and this Amendment shall be enforced as if there were no such rent abatement or other rent concession. In such case Abated Rent shall be calculated based on the Hill initial Base Rent payable under this Amendment.

6. **Consent**. This Amendment is subject to, and conditioned upon, any required consent or approval being unconditionally granted by Landlord's mortgagee(s). If any such consent shall be denied, or granted subject to an unacceptable condition, this Amendment shall be null and void and the Lease shall remain unchanged and in full force and effect.

7. **Broker**. Tenant represents and warrants that it has not been represented by any broker or agent in connection with the execution of this Amendment, except Cushman Wakefield/Thalimer. as Tenant's broker. Tenant shall indemnify and hold harmless Landlord and its designated property management, construction and marketing firms, and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) of any other broker or agent or similar party claiming by, through or under Tenant in connection with this Amendment.

8. **OFAC List Representation**. Tenant hereby represents and warrants to Landlord that neither Tenant nor any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or person: (a) that is listed in the annex to, or is otherwise subject to the provisions of Executive Order 13224 issued on September 24, 2001 ("***EO 13224***"): (b) whose name appears on the United

States Treasury Department's Office of Foreign Assets Control ("***OFAC***") most current list of "Specifically Designated National and Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to, the OFAC website, http:www.treas.gov/ofac/tl 1sdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

9. **Time of the Essence**. Time is of the essence with respect to Tenant's execution and delivery to Landlord of this Amendment. If Tenant fails to execute and deliver a signed copy of this Amendment to Landlord by 5:00 p.m. (in the city in which the Premises is located) on August 17, 2012, this Amendment shall be deemed null and void and shall have no force or effect, unless otherwise agreed in writing by Landlord. Landlord's acceptance, execution and return of this Amendment shall constitute Landlord's agreement to waive Tenant's failure to meet such deadline.

10. **Miscellaneous**. This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns.

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

LCFRE DURHAM KEYSTONE TECHNOLOGY PARK, L.P., a Delaware limited partnership

By: LCFRE Durham Keystone Technology Park GP, LLC, a Delaware limited liability company, its general partner

By: /s/ Thomas P. Paterson
Name: Thomas P. Paterson
Title: Vice President

Effective Date: September 10, 2012

TENANT:

LIQUIDIA TECHNOLOGIES, INC., a Delaware corporation

By: /s/ Bruce Boucher
Name: Bruce Boucher
Title: CFO

THIRD AMENDMENT TO LEASE AGREEMENT

THIS THIRD AMENDMENT TO LEASE AGREEMENT (this "***Amendment***") is entered into between **LCFRE KEYSTONE TECHNOLOGY PARK, L.P.**, a Delaware limited partnership ("***Landlord***"), and **LIQUIDIA TECHNOLOGIES, INC.**, a Delaware corporation ("***Tenant***"), with reference to the following:

A. Technology VII-IX, LLC (predecessor-in-interest to Landlord) and Tenant entered into that certain Lease Agreement dated April 14, 2005; GRE Keystone Technology Park Two LLC and Tenant entered into that certain Lease Modification Agreement No. I dated June 11, 2010; and Landlord and Tenant entered into that certain Second Amendment to Lease Agreement dated September 10, 2012 (as amended, the "***Lease***"), covering approximately 4,401 rentable square feet known as Suite 500 (the "***Premises***") of Keystone Technology Park Building VII, 627 Davis Drive, Durham, North Carolina (the "***Building***").

B. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **Third Extension Period**. The term of the Lease is extended for a period of 14 months commencing on September 1, 2013, and expiring on October 31, 2014 (the "Third Extension Period"). Tenant acknowledges that it has no further renewal, expansion or similar rights or options under the Lease, all of which are hereby deleted and of no further force and effect.

2. **Base Rent**. Commencing on September 1, 2013 and continuing through the Third Extension Period, Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent the amounts set forth in the following rent schedule, plus any applicable tax thereon:

FROM	THROUGH	RATE PER RSF	MONTHLY BASE RENT
September 1, 2013	August 31, 2014	$ 11.76*	$ 4,312.98
September 1, 2014	October 31, 2014	$ 12.11	$ 4,441.34

* Subject to **Section 5** below, 50% of monthly Base Rent for the month abate.

3. **Additional Rent**. Tenant shall continue to pay Tenant's Proportionate Share of Expenses as set forth in **Section 4** of the Lease.

4. **Condition of Premises**. Tenant accepts the Premises in its "as-is" condition. Tenant acknowledges that Landlord has not undertaken to perform any modification, alteration or improvement to the Premises. **TENANT WAIVES (i) ANY CLAIMS DUE TO DEFECTS IN THE PREMISES; AND (ii) ALL EXPRESS AND IMPLIED WARRANTIES OF SUITABILITY, HABITABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE**. Tenant waives the right to terminate the Lease due to the condition of the Premises.

5. **Abated Rent**. If this Amendment provides for a postponement of any Base Rent or payment of Operating Expenses, a period of "free" rent, reduced rent, early occupancy, or other rent concession, such postponed rent, "free" rent, reduced rent or other rent concession shall be referred to herein as the "***Abated Rent***". Tenant shall be credited with having paid all of the Abated Rent on the expiration of the Third Extension Period only if Tenant has fully, faithfully, and punctually performed all of Tenant's obligations hereunder, including the payment of all Base Rent and Operating Expenses (other than the Abated Rent) and all other monetary obligations and the surrender of the Premises in the physical condition required by this Amendment. Tenant acknowledges that its right to receive credit for the Abated Rent is absolutely conditioned upon Tenant's full, faithful and punctual performance of its obligations under this Amendment. If an Event of Default shall occur, the Abated Rent shall immediately become due and payable in full and this Amendment shall be enforced as if there were no such rent abatement or other rent concession. In such case Abated Rent shall be calculated based on the full initial Base Rent payable under this Amendment.

6. **Consent**. This Amendment is subject to, and conditioned upon, any required consent or approval being unconditionally granted by Landlord's mortgagee(s). If any such consent shall be denied, or granted subject to an unacceptable condition, this Amendment shall be null and void and the Lease shall remain unchanged and in full force and effect.

7. **Broker**. Tenant represents and warrants that it has not been represented by any broker or agent in connection with the execution of this Amendment except Spectrum Properties as Landlord's representative and Cushman Wakefield Thalhimer as Tenant's representative. Tenant shall indemnify and hold harmless Landlord and its designated property management, construction and marketing firms, and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) of any other broker or agent or similar party claiming by, through or under Tenant in connection with this Amendment.

8. **OFAC List Representation**. Tenant hereby represents and warrants to Landlord that neither Tenant nor any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or person: (a) that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order 13224 issued on September 24, 2001 ("***EO 13224***"); (b) whose name appears on the United States Treasury Department's Office of Foreign Assets Control ("***OFAC***") most current list of "Specifically Designated National and Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to, the OFAC website, http:www.treas.gov/ofac/t11sdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

9. **Time of the Essence**. Time is of the essence with respect to Tenant's execution and delivery to Landlord of this Amendment. If Tenant fails to execute and deliver a signed copy of this Amendment to Landlord by 5:00 p.m. (in the city in which the Leased Premises is located) on August 9, 2013, this Amendment shall be deemed null and void and shall have no force or effect, unless otherwise agreed in writing by Landlord. Landlord's acceptance, execution and return of this Amendment shall constitute Landlord's agreement to waive Tenant's failure to meet such deadline.

10. **Miscellaneous**. This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns.

[Signatures to follow]

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

LCFRE DURHAM KEYSTONE TECHNOLOGY PARK, L.P., a Delaware limited partnership

By: LCFRE Durham Keystone Technology Park GP, LLC, a Delaware limited liability company, its general partner

By: /s/ Jane B. Page
Name: Jane B. Page
Title: COO

Effective Date: August 13, 2013

TENANT:

LIQUIDIA TECHNOLOGIES, INC., a Delaware corporation

By: /s/ Timothy Albury
Name: Timothy Albury
Title: CFO

FIFTH AMENDMENT TO LEASE AGREEMENT

THIS FIFTH AMENDMENT TO LEASE AGREEMENT (this "***Amendment***") is entered into between **DURHAM KTP TECH 7, LLC**, a Delaware limited liability company ("***Landlord***"), and **LIQUIDIA TECHNOLOGIES, INC.**, a Delaware corporation ("***Tenant***"), with reference to the following:

A. Technology VII-IX, LLC (predecessor-in-interest to Landlord) and Tenant entered into that certain Lease Agreement dated April 14, 2005, as amended by that certain Lease Modification Agreement No. 1 dated June 11, 2010, that certain Second Amendment to Lease dated September 10, 2012, that certain Third Amendment to Lease Agreement dated August 13, 2013, and that certain Fourth Amendment to Lease Agreement dated June 25, 2014 (as amended, the "***Lease***"), covering approximately 4,401 rentable square feet known as Suite 500 (the "***Premises***") of Keystone Technology Park Building VII, 627 Davis Drive, Durham, North Carolina (the "***Building***").

B. Landlord assigned its interest in the Lease to GRE Keystone Technology Park One LLC ("***GRE***"). GRE assigned its interest in the Lease to LCFRE Keystone Technology Park, L.P. which subsequently assigned its interest in the Lease to Landlord.

C. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **Third Extension Period**. The Term of the Lease is extended for a period of approximately 60 months (the "***Third Extension Period***") commencing on November 3, 2017, and expiring on October 31, 2022. Tenant acknowledges that it has no remaining options to extend the Term under the Lease except as provided in ***Section 5*** below. All other renewal rights and options are hereby deleted and of no further force or effect.

2. **Base Rent**. Commencing on November 1, 2017 and continuing through the Third Extension Period, Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent the amounts set forth in the following rent schedule, plus any applicable tax thereon:

FROM	THROUGH	RATE	ANNUAL BASE RENT
November 1, 2017	October 31, 2018	$ 15.25	$ 67,115.28
November 1, 2018	October 31,2019	$ 15.71	$ 69,139.68
November 1, 2019	October 31, 2020	$ 16.18	$ 71,208.24
November 1, 2020	October 31, 2021	$ 16.66	$ 73,320.72
November 1, 2021	October 31, 2022	$ 17.16	$ 75,521.16

3. **Additional Rent**. Tenant shall continue to pay Tenant's Proportionate Share of Expenses as set forth in **Section 4** of the Lease.

4. **Condition of Premises**. **TENANT ACCEPTS THE PREMISES IN ITS "AS-IS" CONDITION AND CONFIGURATION, AND WITHOUT ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, BY LANDLORD REGARDING THE PREMISES AND THE BUILDING. TENANT HEREBY AGREES THAT THE PREMISES ARE IN GOOD ORDER AND SATISFACTORY CONDITION**. However, any necessary construction of leasehold improvements shall be accomplished and the cost of such construction shall be paid in accordance with the "Work Letter" between Landlord and Tenant attached to this Amendment as Exhibit A.

5. **Option Term**.

(a) **Option Right**. Landlord hereby grants to the originally named Tenant herein ("***Original Tenant***") one (1) option to extend the Lease Term for a period of five (5) years (the "***Option Term***"), which option shall be irrevocably exercised only by written notice delivered by Tenant to Landlord not more than fifteen (15) months nor

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less than twelve (12) months prior to the expiration of the Second Extension Period, provided that the following conditions (the "***Option Conditions***") are satisfied: (i) as of the date of delivery of such notice. Tenant is not in default under the Lease, after the expiration of any applicable notice and cure period; (ii) as of the end of the Second Extension Period, Tenant is not in default under the Lease, after the expiration of any applicable notice and cure period; (iii) Tenant has not previously been in default under the Lease, after the expiration of any applicable notice and cure period, more than twice; and (iv) the Lease then remains in full force and effect and Original Tenant or an Affiliated Entity (as such term is defined in the Lease) with a net worth equal to or greater than that of Original Tenant occupies the entire Premises at the time the option to extend is exercised and as of the commencement of the Option Term. Landlord may, at Landlord's option, exercised in Landlord's sole and absolute discretion, waive any of the Option Conditions in which case the option, if otherwise properly exercised by Tenant, shall remain in full force and effect. Upon the proper exercise of such option to extend, and provided that Tenant satisfies all of the Option Conditions (except those, if any, which are waived by Landlord), the Lease Term, as it applies to the Premises, shall be extended for a period of five (5) years. The rights contained in this ***Section 5*** shall be personal to Original Tenant, and may be exercised by Original Tenant (and not by any assignee, sublessee or other transferee of Tenant's interest in the Lease).

(b) **Option Rent**. The annual Rent payable by Tenant during the Option Term (the "***Option Rent***") shall be equal to the "Fair Rental Value," as that term is defined below, for the Premises as of the commencement date of the Option Term. The "Fair Rental Value," as used in this **Section 5**, shall be equal to the annual rent per rentable square foot (including additional rent and considering any "base year" or "expense stop" applicable thereto), including all escalations, at which tenants (pursuant to leases consummated within the twelve (12) month period preceding the first day of the Option Term), are leasing non-sublease, non-encumbered, non-equity space which is not significantly greater or smaller in size than the subject space, for a comparable lease term, in an arm's length transaction, which comparable space is located in the "Comparable Buildings," as that term is defined in this **Section 5**, below (transactions satisfying the foregoing criteria shall be known as the "***Comparable Transactions***"), taking into consideration the following concessions (the "***Concessions***"): (a) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; (b) tenant improvements or allowances provided or to be provided for such comparable space, and taking into account the value, if any, of the existing improvements in the subject space, such value to be based upon the age, condition, design, quality of finishes and layout of the improvements and the extent to which the same can be utilized by a general office user other than Tenant; and (c) other reasonable monetary concessions being granted such tenants in connection with such comparable space; provided, however, that in calculating the Fair Rental Value, no consideration shall be given to (i) the fact that Landlord is or is not required to pay a real estate brokerage commission in connection with Tenant's exercise of its right to extend the Lease Term, or the fact that landlords are or are not paying real estate brokerage commissions in connection with such comparable space, and (ii) any period of rental abatement, if any, granted to tenants in comparable transactions in connection with the design, permitting and construction of tenant improvements in such comparable spaces. The Concessions (A) shall be reflected in the effective rental rate (which effective rental rate shall take into consideration the total dollar value of such Concessions as amortized on a straight-line basis over the applicable term of the Comparable Transaction (in which case such Concessions evidenced in the effective rental rate shall not be granted to Tenant)) payable by Tenant, or (B) at Landlord's election, all such Concessions shall be granted to Tenant in kind. The term "***Comparable Buildings***" shall mean the Building and those other class A life sciences buildings which are comparable to the Building in terms of age (based upon the date of completion of construction or major renovation of to the building), quality of construction, level of services and amenities, size and appearance, and are located in Durham, North Carolina and the surrounding commercial area.

(c) **Determination of Option Rent**. In the event Tenant timely and appropriately exercises an option to extend the Lease Term, Landlord shall notify Tenant of Landlord's determination of the Option Rent on or before the Lease Expiration Date. If Tenant, on or before the date which is ten (10) days following the date upon which Tenant receives Landlord's determination of the Option Rent, in good faith objects to Landlord's determination of the Option Rent, then Landlord and Tenant shall attempt to agree upon the Option Rent using their best good-faith efforts. If Landlord and Tenant fail to reach agreement within ten (10) days following Tenant's objection to the Option Rent (the "***Outside Agreement Date***"), then each party shall make a separate determination of the Option Rent, as the case may be, within five (5) days, and such determinations shall be submitted to arbitration in accordance with the provisions below. If Tenant fails to object to Landlord's determination of the Option Rent

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within the time period set forth herein, then Tenant shall be deemed to have objected to Landlord's determination of Option Rent.

(i) Landlord and Tenant shall each appoint one arbitrator who shall be, at the option of the appointing party, a real estate broker, appraiser or attorney who shall have been active over the five (5) year period ending on the date of such appointment in the leasing or appraisal, as the case may be, of other class A life sciences buildings located in the Durham, North Carolina market area. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted Option Rent is the closest to the actual Option Rent, taking into account the requirements above, as determined by the arbitrators. Each such arbitrator shall be appointed within fifteen (15) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions. The arbitrators so selected by Landlord and Tenant shall be deemed "***Advocate Arbitrators***."

(ii) The two (2) Advocate Arbitrators so appointed shall be specifically required pursuant to an engagement letter within ten (10) days of the date of the appointment of the last appointed Advocate Arbitrator to agree upon and appoint a third arbitrator ("***Neutral Arbitrator***") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators, except that neither the Landlord or Tenant or either parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel.

(iii) The three arbitrators shall, within thirty (30) days of the appointment of the Neutral Arbitrator, reach a decision as to whether the parties shall use Landlord's or Tenant's submitted Option Rent, and shall notify Landlord and Tenant thereof.

(iv) The decision of the majority of the three arbitrators shall be binding upon Landlord and Tenant.

(v) If either Landlord or Tenant fails to appoint an Advocate Arbitrator within fifteen (15) days after the Outside Agreement Date, then either party may petition the presiding judge of the Superior Court of Durham County to appoint such Advocate Arbitrator subject to the criteria above, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such Advocate Arbitrator.

(vi) If the two (2) Advocate Arbitrators fail to agree upon and appoint the Neutral Arbitrator, then either party may petition the presiding judge of the Superior Court of Durham County to appoint the Neutral Arbitrator, subject to criteria above, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such arbitrator.

(vii) The cost of the arbitration shall be paid by Landlord and Tenant equally.

(viii) In the event that the Option Rent shall not have been determined pursuant to the terms hereof prior to the commencement of the Option Term, Tenant shall be required to pay the Option Rent initially provided by Landlord to Tenant, and upon the final determination of the Option Rent, the payments made by Tenant shall be reconciled with the actual amounts of Option Rent due, and the appropriate party shall make any corresponding payment to the other party.

6. **Broker**. Each party represents and warrants to the other that it has not been represented by any broker or agent in connection with the execution of this Amendment, other than Thalhimer Raleigh LLC as Landlord's agent, and Thalhimer Raleigh LLC, as Tenant's agent Each party shall indemnify the other and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) relating to its breach of the foregoing representation.

7. **OFAC List Representation**. Tenant hereby represents and warrants to Landlord that neither Tenant nor, to its knowledge, any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or person: (a) that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order 13224 issued on September 24, 2001 ("***EO 13224***"); (b) whose name appears on the United States Treasury Department's Office

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of Foreign Assets Control ("***OFAC***") most current list of "Specifically Designated National and Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to, the OFAC website, http:www.treas.gov/ofac/t11sdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

8. **Miscellaneous**. This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns. This Amendment may be executed in one or more counterparts, including by facsimile or electronic copy.

[*Signatures to follow*]

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

DURHAM KTP TECH 7, LLC,
a Delaware limited liability company

By: /s/ Jamison N. Peschel
Name: Jamison N. Peschel
Title: Authorized Signatory

Effective Date: Nov.17, 2015

TENANT:

LIQUIDIA TECHNOLOGIES, INC.,
a Delaware corporation

By: /s/ Timothy Albury
Name: Timothy Albury
Title: CFO

EXHIBIT A

TENANT WORK LETTER

This Tenant Work Letter is attached as an Exhibit to that certain Fifth Amendment to Lease Agreement (the "*Amendment*") between DURHAM KTP TECH 7, LLC, as Landlord, and LIQUIDIA TECHNOLOGIES, INC., as Tenant, that amends that certain Lease Agreement dated April 14, 2005 (as amended, the "*Lease*") and relating to the lease by Landlord to Tenant of that certain Premises. Unless otherwise specified, all capitalized terms used in this Work Letter shall have the same meanings as in the Lease as amended by the Amendment.

1. Construction. Tenant agrees to construct leasehold improvements (the "*Tenant Work*") in a good and workmanlike manner in and upon the Premises, at Tenant's sole cost and expense, in accordance with the following provisions. Prior to construction, Tenant shall submit to Landlord for Landlord's approval complete plans and specifications for the construction of the Tenant Work ("*Tenant's Plans*"). Within 10 business days after receipt of Tenant's Plans, Landlord shall review and either approve or disapprove Tenant's Plans. If Landlord disapproves Tenant's Plans, or any portion thereof, Landlord shall notify Tenant thereof and of the revisions Landlord requires before Landlord will approve Tenant's Plans. Within 10 business days after Landlord's notice, Tenant shall submit to Landlord, for Landlord 's review and approval, plans and specifications incorporating the required revisions. The final plans and specifications approved by Landlord are hereinafter referred to as the "*Approved Construction Documents*". Tenant will employ experienced, licensed contractors, architects, engineers and other consultants, approved by Landlord, to construct the Tenant Work and will require in the applicable contracts that such parties (a) carry insurance in such amounts and types of coverages as are reasonably required by Landlord, (b) list the Landlord and its partners as additional insureds, and (c) design and construct the Tenant Work in a good and workmanlike manner and in compliance with all laws. Unless otherwise agreed to in writing by Landlord and Tenant, all work involved in the construction and installation of the Tenant Work shall be carried out by Tenant's contractor under the sole direction of Tenant, in compliance with all Building rules and regulations and in such a manner so as not to unreasonably interfere with or disturb the operations, business, use and enjoyment of the Project by other tenants in the Building or the structural calculations for imposed loads. Tenant shall obtain from its contractors and provide to Landlord a list of all subcontractors providing labor or materials in connection with any portion of the Tenant Work prior to commencement of the Tenant Work. Tenant warrants that the design, construction and installation of the Tenant Work shall conform to the requirements of all applicable laws, including building, plumbing and electrical codes and parameters, and the requirements of any authority having jurisdiction over, or with respect to, such Tenant Work.

2. Costs. Subject to the terms and conditions of this Section 2, Landlord will provide Tenant with an allowance (the "*Reimbursement Allowance*") to be applied towards the cost of constructing the Tenant Work.

(A) Landlord's obligation to reimburse Tenant for Tenant's construction of the Tenant Work shall be: (i) limited to actual costs incurred by Tenant in its construction of the Tenant Work; (ii) limited to an amount up to, but not exceeding, $10.00 multiplied by the rentable square footage of the Premises; and (iii) conditioned upon Landlord's receipt of written notice (which notice shall be accompanied by invoices and documentation set forth below) from Tenant that the Tenant Work has been completed and accepted by Tenant. The cost of (a) all space planning, design, consulting or review services and construction drawings, (b) extension of electrical wiring from Landlord's designated location(s) to the Premises, (c) purchasing and installing all building equipment for the Premises (including any submeters and other above building standard electrical equipment approved by Landlord), (d) required metering, re-circuiting or re-wiring for metering, equipment rental, engineering design services, consulting services, studies, construction services, cost of billing and collections, (e) materials and labor, (f) a 1% project management fee as outlined below in ***Section 4***, payable to Landlord or its affiliates on total construction costs, and (g) an asbestos survey of the Premises if required by applicable law, shall all be included in the cost of the Tenant Work and may be paid out of the Reimbursement Allowance, to the extent sufficient funds are available for such purpose. Any reimbursement obligation of Landlord under this Work Letter shall be applied solely to the purposes specified above, as allocated, within 365 days after the Effective Date or be forfeited with no further obligation on the part of Landlord.

(B) Landlord shall pay the Reimbursement Allowance to Tenant within 45 days following Landlord's receipt of (i) third-party invoices for costs incurred by Tenant in constructing the Tenant Work; (ii) evidence that Tenant has paid the invoices for such costs; and (iii) final lien waivers from any contractor or supplier who has constructed or

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supplied materials for the Tenant Work. If the costs incurred by Tenant in constructing the Tenant Work exceed the Reimbursement Allowance, then Tenant shall pay all such excess costs and Tenant agrees to keep the Premises and the Project free from any liens arising out of the non-payment of such costs.

(C) All installations and improvements now or hereafter placed in the Premises other than building standard improvements shall be for Tenant's account and at Tenant's cost. Tenant shall pay ad valorem taxes and increased insurance thereon or attributable thereto, which cost shall be payable by Tenant to Landlord as additional Rent within 30 days after receipt of an invoice therefor. Tenant's failure to pay such cost shall constitute an event of default under the Lease.

3. ADA Compliance. Landlord shall not be responsible for determining whether Tenant is a public accommodation under ADA or whether the Approved Construction Documents comply with ADA requirements. Such determinations, if desired by Tenant, shall be the sole responsibility of Tenant. Landlord's approval of the Approved Construction Documents shall not be deemed a statement of compliance with applicable Laws, nor of the accuracy, adequacy, appropriateness, functionality or quality of the improvements to be made according to the Approved Construction Documents.

4. Landlord's Oversight and Coordination. Construction of the Tenant Work shall be subject to oversight and coordination by Landlord, but such oversight and coordination shall not subject Landlord to any liability to Tenant, Tenant's contractors or any other person. Landlord has the right to inspect construction of the Tenant Work from, time to time. A 1% project management fee shall be payable to Landlord or its affiliates by Tenant on total construction costs which amount Landlord may pay from the available Reimbursement Allowance.

5. Assumption of Risk and Waiver. Tenant hereby assumes any and all risks involved with respect to the Tenant Work and hereby releases and discharges all Landlord parties from any and all liability or loss, damage or injury suffered or incurred by Tenant or third parties in any way arising out of or in connection with the Tenant Work.

FOURTH AMENDMENT TO LEASE AGREEMENT

THIS FOURTH AMENDMENT TO LEASE AGREEMENT (this "***Amendment***") is entered into between **LCFRE KEYSTONE TECHNOLOGY PARK, L.P.**, a Delaware limited partnership ("***Landlord***"), and **LIQUIDIA TECHNOLOGIES, INC.**, a Delaware corporation ("***Tenant***"), with reference to the following:

A. Technology V1I-1X. LLC (predecessor-in-interest to Landlord) and Tenant entered into that certain Lease Agreement dated April 14, 2005: GRL Keystone Technology Park Two LLC and Tenant entered into that certain Lease Modification Agreement No. 1 dated June 11, 2010; and Landlord and Tenant entered into that certain Second Amendment to Lease Agreement dated September 10, 2012, and that certain Third Amendment to Lease Agreement dated August 13, 2013 (as amended, the "***Lease***"), covering approximately 4,401 rentable square feet known as Suite 500 (the "***Premises***") of Keystone Technology Park Building VII, 627 Davis Drive, Durham, North Carolina (the "***Building***").

B. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **Fourth Extension Period**. The term of the Lease is extended for a period of 36 months commencing on November 1, 2014, and expiring on October 31, 2017 (the "***Fourth Extension Period***"). Tenant acknowledges that it has no further renewal, expansion or similar rights or options under the Lease.

2. **Base Rent**. Commencing on November 1. 2014 and continuing through the Fourth Extension Period, Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent the amounts set forth in the following rent schedule, plus any applicable tax thereon:

FROM	THROUGH	RATE PER RSF	MONTHLY BASE RENT
November 1, 2014	October 31, 2015	$ 13.75	$ 5,042.81
November 1, 2015	October 31, 2016	$ 14.16	$ 5,193.18
November 1, 2016	October 31, 2017	$ 14.59	$ 5,350.88

3. **Additional Rent**. Tenant shall continue to pay Tenant's Proportionate Share of Expenses as set forth in **Section 4** of the Lease.

4. **Condition of Premises**. Tenant accepts the Premises in its "as-is" condition. However, any necessary construction of leasehold improvements shall be accomplished and the cost of such construction shall be paid in accordance with the "Work Letter" between Landlord and Tenant attached to this Amendment as **Exhibit A**. Tenant acknowledges that Landlord has not undertaken to perform any modification, alteration or improvement to the Premises. **TENANT WAIVES ANY CLAIMS DUE TO DEFECTS IN THE PREMISES**. Tenant waives the right to terminate the Lease due to the condition of the Premises. Nothing in this Section shall be deemed to negate Landlord's repair and maintenance obligations under the Lease.

5. **Consent**. This Amendment is subject to, and conditioned upon, any required consent or approval being unconditionally granted by Landlord's mortgagee(s). If any such consent shall be denied, or granted subject to an unacceptable condition, this Amendment shall be null and void and the Lease shall remain unchanged and in full force and effect.

6. **Broker**. Tenant represents and warrants that it has not been represented by any broker or agent in connection with the execution of this Amendment except Jim Allaire of Cushman & Wakefield/Thalhimer as Tenant's broker, and Sue Back and Jordan Betz of Cushman & Wakefield/Thalhimer as Landlord's broker whose commissions shall be paid by Landlord pursuant to separate written agreements. Tenant shall indemnify, defend and hold harmless Landlord and its designated property management, construction and marketing firms, and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders,

employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) of any other broker or agent or similar party claiming by, through or under Tenant in connection with this Amendment. Landlord shall indemnify, defend and hold harmless Tenant and its partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) of any other broker or agent or similar party claiming by, through or under Landlord in connection with this Amendment.

7. **OFAC List Representation**. Tenant hereby represents and warrants to Landlord that neither Tenant nor any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or person: (a) that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order 13224 issued on September 24, 2001 ("***EO 13224***"); (b) whose name appears on the United States Treasury Department's Office of Foreign Assets Control ("***OFAC***") most current list of "Specially Designated National and Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to, the OFAC website, http:www.treas.gov/ofac/t1sdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

8. **Time of the Essence**. Time is of the essence with respect to Tenant's execution and delivery to Landlord of this Amendment. If Tenant fails to execute and deliver a signed copy of this Amendment to Landlord by 5:00 p.m. (in the city in which the Premises is located) on June 10, 2014, this Amendment shall be deemed null and void and shall have no force or effect, unless otherwise agreed in writing by Landlord. Landlord's acceptance, execution and return of this Amendment shall constitute Landlord s agreement to waive Tenant's failure to meet such deadline.

9. **Miscellaneous**. This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment on which the parties have relied. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns.

[*Signatures to follow*]

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

LCFRE DURHAM KEYSTONE TECHNOLOGY PARK, L.P., a Delaware limited partnership

By: LCFRE Durham Keystone Technology Park GP, LLC, a Delaware limited liability company, its general partner

By: /s/ Thomas P. Patterson
Name: Thomas P. Patterson
Title: Vice President

Effective Date: June 25, 2014

TENANT:

LIQUIDIA TECHNOLOGIES, INC., a Delaware corporation

By: /s/ Timothy Albury
Name: Timothy Albury
Title: CFO

EXHIBIT A

WORK LETTER

This Work Letter is attached as an Exhibit to that certain Fourth Amendment to Lease Agreement (the "***Amendment***") between **LCFRE DURHAM KEYSTONE TECHNOLOGY PARK, L.P.**, as Landlord, and **LIQUIDIA TECHNOLOGIES, INC.**, as Tenant, that amends that certain Lease Agreement dated April 14, 2005 (as amended, the "***Lease***") and relating to the lease by Landlord to Tenant of that certain Premises. Unless otherwise specified, all capitalized terms used in this Work Letter shall have the same meanings as in the Lease as amended by the Amendment.

1. **Construction**. Tenant agrees to construct leasehold improvements (the "***Tenant Work***") in a good and workmanlike manner in and upon the Premises, at Tenant's sole cost and expense, in accordance with the following provisions. After completion, Tenant shall submit to Landlord for Landlord's approval complete plans and specifications for the construction of the Tenant Work ("***Tenant's Plans***"). Within 10 business days after receipt of Tenant's Plans, Landlord shall review and either approve or disapprove Tenant's Plans. If Landlord disapproves Tenant's Plans, or any portion thereof. Landlord shall notify Tenant thereof and of the revisions Landlord requires before Landlord will approve Tenant's Plans. Within 10 business days after Landlord's notice, Tenant shall submit to Landlord, for Landlord's review and approval, plans and specifications incorporating the required revisions. The final plans and specifications approved by Landlord are hereinafter referred to as the "***Approved Construction Documents***". Tenant will employ experienced, licensed contractors, architects, engineers and other consultants, approved by Landlord, to construct the Tenant Work and will require in the applicable contracts that such parties (a) carry insurance in such amounts and types of coverages as are reasonably required by Landlord, and (b) design and construct the Tenant Work in a good and workmanlike manner and in compliance with all laws. Unless otherwise agreed to in writing by Landlord and Tenant, all work involved in the construction and installation of the Tenant Work shall be carried out by Tenant's contractor under the sole direction of Tenant, in compliance with all Building rules and regulations and in such a manner so as not to unreasonably interfere with or disturb the operations, business, use and enjoyment of the Project by other tenants in the Building or the structural calculations for imposed loads. Tenant shall obtain from its contractors and provide to Landlord a list of all subcontractors providing labor or materials in connection with any portion of the Tenant Work prior to commencement of the Tenant Work. Tenant warrants that the design, construction and installation of the Tenant Work shall conform to the requirements of all applicable laws, including building, plumbing and electrical codes and parameters, and the requirements of any authority having jurisdiction over, or with respect to, such Tenant Work.

2. **Costs**. Subject to the terms and conditions of this **Section 2**, Landlord will provide Tenant with an allowance (the "***Reimbursement Allowance***") to be applied towards the cost of constructing the Tenant Work.

(A) Landlord's obligation to reimburse Tenant for Tenant's construction of the Tenant Work shall be: (i) limited to actual costs incurred by Tenant in its construction of the Tenant Work; (ii) limited to an amount up to, but not exceeding, $3.00 multiplied by the rentable square footage of the Premises; and (iii) conditioned upon Landlord's receipt of written notice (which notice shall be accompanied by invoices and documentation set forth below) from Tenant that the Tenant Work has been completed and accepted by Tenant. The cost of (a) all space planning, design, consulting or review services and construction drawings, (b) extension of electrical wiring from Landlord's designated location(s) to the Premises, (c) purchasing and installing all building equipment for the Premises (including any submeters and other above building standard electrical equipment approved by Landlord), (d) required metering, re- circuiting or re-wiring for metering, equipment rental, engineering design services, consulting services, studies, construction services, cost of billing and collections, (e) materials and labor, and (f) an asbestos survey of the Premises if required by applicable law. shall all be included in the cost of the Tenant Work and may be paid out of the Reimbursement Allowance, to the extent sufficient funds are available for such purpose. Any reimbursement obligation of Landlord under this Work Letter shall be applied solely to the purposes specified above, as allocated, within 180 days after the Effective Date or be forfeited with no further obligation on the part of Landlord.

(B) Landlord shall pay the Reimbursement Allowance to Tenant within 45 days following Landlord's receipt of (i) third-party invoices for costs incurred by Tenant in constructing the Tenant Work; (ii) evidence that Tenant has paid the invoices for such costs; and (iii) final lien waivers from any contractor or supplier

who has constructed or supplied materials for the Tenant Work. If the costs incurred by Tenant in constructing the Tenant Work exceed the Reimbursement Allowance, then Tenant shall pay all such excess costs and Tenant agrees to keep the Premises and the Project free from any liens arising out of the non-payment of such costs.

(C) All installations and improvements now or hereafter placed in the Premises other than building standard improvements shall be for Tenant's account and at Tenant's cost. Tenant shall pay ad valorem taxes and increased insurance thereon or attributable thereto, which cost shall be payable by Tenant to Landlord as additional Rent within 30 days after receipt of an invoice therefor. Tenant's failure to pay such cost shall constitute an event of default under the Lease.

3. **ADA Compliance**. Tenant shall, at its expense, be responsible for ADA compliance in the Premises, including restrooms on any floor now or hereafter leased or occupied in its entirety by Tenant, its affiliates or transferees. Landlord shall not be responsible for determining whether Tenant is a public accommodation under ADA or whether the Approved Construction Documents comply with ADA requirements. Such determinations, if desired by Tenant, shall be the sole responsibility of Tenant. Landlord's approval of the Approved Construction Documents shall not be deemed a statement of compliance with applicable Laws, nor of the accuracy, adequacy, appropriateness, functionality or quality of the improvements to be made according to the Approved Construction Documents.

4. **Landlord's Oversight and Coordination**. Construction of the Tenant Work shall be subject to oversight and coordination by Landlord, but such oversight and coordination shall not subject Landlord to any liability to Tenant, Tenant's contractors or any other person. Landlord has the right to inspect construction of the Tenant Work from time to time.

5. **Assumption of Risk and Waiver**. Tenant hereby assumes any and all risks involved with respect to the Tenant Work and hereby releases and discharges all Landlord parties from any and all liability or loss, damage or injury suffered or incurred by Tenant or third parties in any way arising out of or in connection with the Tenant Work.

FIFTH AMENDMENT TO LEASE AGREEMENT

THIS FIFTH AMENDMENT TO LEASE AGREEMENT (this ***"Amendment")*** is entered into between **DURHAM KTP TECH 7, LLC,** a Delaware limited liability company ***("Landlord"),*** and **LIQUIDIA TECHNOLOGIES, INC.,** a Delaware corporation ***("Tenant"),*** with reference to the following:

A. Technology VII-IX, LLC (predecessor-in-interest to Landlord) and Tenant entered into that certain Lease Agreement dated April 14, 2005, as amended by that certain Lease Modification Agreement No. 1 dated June 11, 2010, that certain Second Amendment to Lease dated September 10, 2012, that certain Third Amendment to Lease Agreement dated August 13, 2013, and that certain Fourth Amendment to Lease Agreement dated June 25, 2014 (as amended, the ***"Lease"),*** covering approximately 4,401 rentable square feet known as Suite 500 (the ***"Premises")*** of Keystone Technology Park Building VII, 627 Davis Drive, Durham, North Carolina (the ***"Building").***

B. Landlord assigned its interest in the Lease to GRE Keystone Technology Park One LLC ("GRE"). GRE assigned its interest in the Lease to LCFRE Keystone Technology Park, L.P. which subsequently assigned its interest in the Lease to Landlord.

C. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **Third Extension Period.** The Term of the Lease is extended for a period of approximately 60 months (the ***"Third Extension Period')*** commencing on November 1, 2017, and expiring on October 31, 2022. Tenant acknowledges that it has no remaining options to extend the Term under the Lease except as provided in Section 5 below. All other renewal rights and options are hereby deleted and of no further force or effect.

2. **Base Rent.** Commencing on November 1, 2017 and continuing through the Third Extension Period, Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent the amounts set forth in the following rent schedule, plus any applicable tax thereon:

FROM	THROUGH	RATE	ANNUAL BASE RENT

November 1, 2017	October 31, 2018	$	15.25	$	67,115.28
November 1, 2018	October 31, 2019	$	15.71	$	69,139.68
November 1, 2019	October 31, 2020	$	16.18	$	71,208.24
November 1, 2020	October 31, 2021	$	16.66	$	73,320.72
November 1, 2021	October 31, 2022	$	17.16	$	75,521.16

3. **Additional Rent.** Tenant shall continue to pay Tenant's Proportionate Share of Expenses as set forth in **Section 4** of the Lease.

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4. **Condition of Premises.** Tenant accepts the premises in its "as-is" condition and configuration, and without any representations or warranties of any kind, express or implied, by landlord regarding the premises and the building. Tenant hereby agrees that the premises are in good order and satisfactory condition. However, any necessary construction of leasehold improvements shall be accomplished and the cost of such construction shall be paid in accordance with the "Work Letter" between Landlord and Tenant attached to this Amendment as Exhibit A.

5. **Option Term.**

(a) **Option Right.** Landlord hereby grants to the originally named Tenant herein ***("Original Tenant")*** one (1) option to extend the Lease Term for a period of five (5) years (the ***"Option Term"),*** which option shall be irrevocably exercised only by written notice delivered by Tenant to Landlord not more than fifteen (15) months nor less than twelve (12) months prior to the expiration of the Second Extension Period, provided that the following conditions (the ***"Option Conditions")*** are satisfied: (i) as of the date of delivery of such notice, Tenant is not in default under the Lease, after the expiration of any applicable notice and cure period; (ii) as of the end of the Second Extension Period, Tenant is not in default under the Lease, after the expiration of any applicable notice and cure period; (iii) Tenant has not previously been in default under the Lease, after the expiration of any applicable notice and cure period, more than twice; and (iv) the Lease then remains in full force and effect and Original Tenant or an Affiliated Entity (as such term is defined in the Lease) with a net worth equal to or greater than that of Original Tenant occupies the entire Premises at the time the option to extend is exercised and as of the commencement of the Option Term. Landlord may, at Landlord's option, exercised in Landlord's sole and absolute discretion, waive any of the Option Conditions in which case the option, if otherwise properly exercised by Tenant, shall remain in full force and effect. Upon the proper exercise of such option to extend, and provided that Tenant satisfies all of the Option Conditions (except those, if any, which are waived by Landlord), the Lease Term, as it applies to the Premises, shall be extended for a period of five (5) years. The rights contained in this Section 5 shall be personal to Original Tenant, and may be exercised by Original Tenant (and not by any assignee, sublessee or other transferee of Tenant's interest in the Lease).

(b) **Option Rent.** The annual Rent payable by Tenant during the Option Term (the ***"Option Rent")*** shall be equal to the "Fair Rental Value," as that term is defined below, for the Premises as of the commencement date of the Option Term. The ***"Fair Rental Value,"*** as used in this Section 5, shall be equal to the annual rent per rentable square foot (including additional rent and considering any "base year" or "expense stop" applicable thereto), including all escalations, at which tenants (pursuant to leases consummated within the twelve (12) month period preceding the first day of the Option Term), are leasing non-sublease, non-encumbered, non-equity space which is not significantly greater or smaller in size than the subject space, for a comparable lease term, in an arm's length transaction, which comparable space is located in the "Comparable Buildings," as that term is defined in this Section 5, below (transactions satisfying the foregoing criteria shall be known as the ***"Comparable Transactions"),*** taking into consideration the following concessions (the ***"Concessions"):*** (a) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; (b) tenant improvements or allowances provided or to be provided for such comparable space, and taking into account the value, if any, of the existing improvements in the subject space, such value to be based upon the age, condition, design, quality of finishes and layout of the improvements and the

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extent to which the same can be utilized by a general office user other than Tenant; and (c) other reasonable monetary concessions being granted such tenants in connection with such comparable space; provided, however, that in calculating the Fair Rental Value, no consideration shall be given to (i) the fact that Landlord is or is not required to pay a real estate brokerage commission in connection with Tenant's exercise of its right to extend the Lease Term, or the fact that landlords are or are not paying real estate brokerage commissions in connection with such comparable space, and (ii) any period of rental abatement, if any, granted to tenants in comparable transactions in connection with the design, permitting and construction of tenant improvements in such comparable spaces. The Concessions (A) shall be reflected in the effective rental rate (which effective rental rate shall take into consideration the total dollar value of such Concessions as amortized on a straight-line basis over the applicable term of the Comparable Transaction (in which case such Concessions evidenced in the effective rental rate shall not be granted to Tenant)) payable by Tenant, or (B) at Landlord's election, all such Concessions shall be granted to Tenant in kind. The term ***"Comparable Buildings"*** shall mean the Building and those other class A life sciences buildings which are comparable to the Building in terms of age (based upon the date of completion of construction or major renovation of to the building), quality of construction, level of services and amenities, size and appearance, and are located in Durham, North Carolina and the surrounding commercial area

(c) **Determination of Option Rent.** In the event Tenant timely and appropriately exercises an option to extend the Lease Term, Landlord shall notify Tenant of Landlord's determination of the Option Rent on or before the Lease Expiration Date. If Tenant, on or before the date which is ten (10) days following the date upon which Tenant receives Landlord's determination of the Option Rent, in good faith objects to Landlord's determination of the Option Rent, then Landlord and Tenant shall attempt to agree upon the Option Rent using their best good-faith efforts. If Landlord and Tenant fail to reach agreement within ten (10) days following Tenant's objection to the Option Rent (the ***"Outside Agreement Date"),*** then each party shall make a separate determination of the Option Rent, as the case may be, within five (5) days, and such determinations shall be submitted to arbitration in accordance with the provisions below. If Tenant fails to object to Landlord's determination of the Option Rent within the time period set forth herein, then Tenant shall be deemed to have objected to Landlord's determination of Option Rent.

(i) Landlord and Tenant shall each appoint one arbitrator who shall be, at the option of the appointing party, a real estate broker, appraiser or attorney who shall have been active over the five (5) year period ending on the date of such appointment in the leasing or appraisal, as the case may be, of other class A life sciences buildings located in the Durham, North Carolina market area. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted Option Rent is the closest to the actual Option Rent, taking into account the requirements above, as determined by the arbitrators. Each such arbitrator shall be appointed within fifteen (15) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions. The arbitrators so selected by Landlord and Tenant shall be deemed ***"Advocate Arbitrators ."***

(ii) The two (2) Advocate Arbitrators so appointed shall be specifically required pursuant to an engagement letter within ten (10) days of the date of the appointment of the last appointed Advocate Arbitrator to agree upon and appoint a third arbitrator ***("Neutral***

Arbitrator") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators, except that neither the Landlord or Tenant or either parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel.

(iii) The three arbitrators shall, within thirty (30) days of the appointment of the Neutral Arbitrator, reach a decision as to whether the parties shall use Landlord's or Tenant's submitted Option Rent, and shall notify Landlord and Tenant thereof.

(iv) The decision of the majority of the three arbitrators shall be binding upon Landlord and Tenant.

(v) If either Landlord or Tenant fails to appoint an Advocate Arbitrator within fifteen (15) days after the Outside Agreement Date, then either party may petition the presiding judge of the Superior Court of Durham County to appoint such Advocate Arbitrator subject to the criteria above, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such Advocate Arbitrator.

(vi) If the two (2) Advocate Arbitrators fail to agree upon and appoint the Neutral Arbitrator, then either party may petition the presiding judge of the Superior Court of Durham County to appoint the Neutral Arbitrator, subject to criteria above, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such arbitrator.

(vii) The cost of the arbitration shall be paid by Landlord and Tenant equally.

(viii) In the event that the Option Rent shall not have been determined pursuant to the terms hereof prior to the commencement of the Option Term, Tenant shall be required to pay the Option Rent initially provided by Landlord to Tenant, and upon the final determination of the Option Rent, the payments made by Tenant shall be reconciled with the actual amounts of Option Rent due, and the appropriate party shall make any corresponding payment to the other party.

6. **Broker.** Each party represents and warrants to the other that it has not been represented by any broker or agent in connection with the execution of this Amendment, other than Thalhimer Raleigh LLC as Landlord's agent, and Thalhimer Raleigh LLC, as Tenant's agent Each party shall indemnify the other and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) relating to its breach of the foregoing representation.

7. **OFAC List Representation.** Tenant hereby represents and warrants to Landlord that neither Tenant nor, to its knowledge, any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or person: (a) that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order 13224 issued on September 24, 2001 ***("EO 13224");*** (b) whose name appears on the United States Treasury Department's Office of Foreign Assets Control ***("OFAC')*** most current list of "Specifically Designated National and

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Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to, the OFAC website, http:www.treas.gov/ofac/tl **1**sdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

8. **Miscellaneous.** This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns. This Amendment may be executed in one or more counterparts, including by facsimile or electronic copy.

[***Signatures to follow]***

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

DURHAM KTP TECH 7, LLC,
a Delaware limited liability company

By: /s/ Jamison N. Peschel
Name: Jamison N. Peschel
Title: Authorized Signatory

Effective Date: June 9, 2017

TENANT:

LIQUIDIA TECHNOLOGIES, INC.,
a Delaware corporation

By: /s/ Shawn Glidden
Name: Shawn Glidden
Title: VP Legal Affairs and Secretary

Effective Date: June 9, 2017

EXHIBIT A

TENANT WORK LETTER

This Tenant Work Letter is attached as an Exhibit to that certain Fifth Amendment to Lease Agreement (the *"Amendment")* between DURHAM KTP TECH 7, LLC, as Landlord, and LIQUIDIA TECHNOLOGIES, INC., as Tenant, that amends that certain Lease Agreement dated April 14, 2005 (as amended, the *"Lease")* and relating to the lease by Landlord to Tenant of that certain Premises. Unless otherwise specified, all capitalized terms used in this Work Letter shall have the same meanings as in the Lease as amended by the Amendment.

1. Construction. Tenant agrees to construct leasehold improvements (the *"Tenant Work")* in a good and workmanlike manner in and upon the Premises, at Tenant's sole cost and expense, in accordance with the following provisions. Prior to construction, Tenant shall submit to Landlord for Landlord's approval complete plans and specifications for the construction of the Tenant Work *("Tenant's Plans").* Within 10 business days after receipt of Tenant's Plans, Landlord shall review and either approve or disapprove Tenant's Plans. If Landlord disapproves Tenant's Plans, or any portion thereof, Landlord shall notify Tenant thereof and of the revisions Landlord requires before Landlord will approve Tenant's Plans. Within 10 business days after Landlord's notice, Tenant shall submit to Landlord, for Landlord 's review and approval, plans and specifications incorporating the required revisions. The final plans and specifications approved by Landlord are hereinafter referred to as the *"Approved Construction Documents".* Tenant will employ experienced, licensed contractors, architects, engineers and other consultants, approved by Landlord, to construct the Tenant Work and will require in the applicable contracts that such parties (a) carry insurance in such amounts and types of coverages as are reasonably required by Landlord, (b) list the Landlord and its partners as additional insureds, and (c) design and construct the Tenant Work in a good and workmanlike manner and in compliance with all laws. Unless otherwise agreed to in writing by Landlord and Tenant, all work involved in the construction and installation of the Tenant Work shall be carried out by Tenant's contractor under the sole direction of Tenant, in compliance with all Building rules and regulations and in such ·a manner so as not to unreasonably interfere with or disturb the operations, business, use and enjoyment of the Project by other tenants in the Building or the structural calculations for imposed loads. Tenant shall obtain from its contractors and provide to Landlord a list of all subcontractors providing labor or materials in connection with any portion of the Tenant Work prior to commencement of the Tenant Work. Tenant warrants that the design, construction and installation of the Tenant Work shall conform to the requirements of all applicable laws, including building, plumbing and electrical codes and parameters, and the requirements of any authority having jurisdiction over, or with respect to, such Tenant Work.

2. Costs. Subject to the terms and conditions of this Section 2, Landlord will provide Tenant with an allowance (the *"Reimbursement Allowance")* to be applied towards the cost of constructing the Tenant Work.

(A) Landlord's obligation to reimburse Tenant for Tenant's construction of the Tenant Work shall be: (i) limited to actual costs incurred by Tenant in its construction of the Tenant Work; (ii) limited to an amount up to, but not exceeding, $10.00 multiplied by the rentable square footage of the Premises; and (iii) conditioned upon Landlord 's receipt of written notice (which notice shall be accompanied by invoices and documentation set forth below) from Tenant that the

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Tenant Work has been completed and accepted by Tenant. The cost of (a) all space planning, design, consulting or review services and construction drawings, (b) extension of electrical wiring from Landlord's designated location(s) to the Premises, (c) purchasing and installing all building equipment for the Premises (including any submeters and other above building standard electrical equipment approved by Landlord), (d) required metering, re-circuiting or re-wiring for metering, equipment rental, engineering design services, consulting services, studies, construction services, cost of billing and collections, (e) materials and labor, (f) a 1% project management fee as outlined below in section 4, payable to Landlord or its affiliates on total construction costs, and (g) an asbestos survey of the Premises if required by applicable law, shall all be included in the cost of the Tenant Work and may be paid out of the Reimbursement Allowance, to the extent sufficient funds are available for such purpose. Any reimbursement obligation of Landlord under this Work Letter shall be applied solely to the purposes specified above, as allocated, within 365 days after the Effective Date or be forfeited with no further obligation on the part of Landlord.

(B) Landlord shall pay the Reimbursement Allowance to Tenant within 45 days following Landlord's receipt of (i) third-party invoices for costs incurred by Tenant in constructing the Tenant Work; (ii) evidence that Tenant has paid the invoices for such costs; and (iii) final lien waivers from any contractor or supplier who has constructed or supplied materials for the Tenant Work. If the costs incurred by Tenant in constructing the Tenant Work exceed the Reimbursement Allowance, then Tenant shall pay all such excess costs and Tenant agrees to keep the Premises and the Project free from any liens arising out of the non-payment of such costs.

(C) All installations and improvements now or hereafter placed in the Premises other than building standard improvements shall be for Tenant's account and at Tenant's cost. Tenant shall pay ad valorem taxes and increased insurance thereon or attributable thereto, which cost shall be payable by Tenant to Landlord as additional Rent within 30 days after receipt of an invoice therefor. Tenant's failure to pay such cost shall constitute an event of default under the Lease.

3. ADA Compliance. Landlord shall not be responsible for determining whether Tenant is a public accommodation under ADA or whether the Approved Construction Documents comply with ADA requirements. Such determinations, if desired by Tenant, shall be the sole responsibility of Tenant. Landlord's approval of the Approved Construction Documents shall not be deemed a statement of compliance with applicable Laws, nor of the accuracy, adequacy, appropriateness, functionality or quality of the in1provements to be made according to the Approved Construction Documents.

4. Landlord's Oversight and Coordination. Construction of the Tenant Work shall be subject to oversight and coordination by Landlord, but such oversight and coordination shall not subject Landlord to any liability to Tenant, Tenant's contractors or any other person. Landlord has the right to inspect construction of the Tenant Work from time to time. A 1% project management fee shall be payable to Landlord or its affiliates by Tenant on total construction costs which amount Landlord may pay from the available Reimbursement Allowance.

5. Assumption of Risk and Waiver. Tenant hereby assumes all risks involved with respect to the Tenant Work and hereby releases and discharges all Landlord parties from any and

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all liability or loss, damage or injury suffered or incurred by Tenant or third parties in any way arising out of or in connection with the Tenant Work.

Exhibit 10.31

LEASE AGREEMENT

by and between

GRE KEYSTONE TECHNOLOGIES ONE LLC

LANDLORD

and

LIQUIDIA TECHNOLOGIES, INC.

TENANT

Dated as of: June 29, 2007

A-2	-	The Land
A-3	-	The Project
B	-	Acceptance of Leased Premises Memorandum
C	-	Workletter Agreement
C-l	-	Schematic Space Plan
D	-	Building Rules
E	-	Form of Estoppel Certificate
F	-	Itemized Inventory of Hazardous or Toxic Materials
G	-	Renewal Options
H	-	First Offer Right

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "Lease") is made and entered into as of this day of , 2007 (the "Execution Date'"), by and between **GRE Keystone Technology Park One LLC**, Delaware limited liability company authorized to conduct business in the State of North Carolina ("Landlord"), and Liquidia Technologies, Inc., Delaware corporation authorized to conduct business in the State of North Carolina ("Tenant"). In consideration of the representations and covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged. Landlord and Tenant hereby agree as follows:

ARTICLE 1 - LEASED PREMISES

1.01 Leased Premises.

Landlord leases to Tenant and Tenant leases from Landlord the space (the "Leased Premises") set forth in Subsections (a) and (b) of the Basic Lease Provisions below and shown on the floor plan(s) attached hereto as Exhibit A-l upon the terms and conditions set forth in this Lease. The building in which the Leased Premises are located, the land on which the building is located (the "Land", described on Exhibit A-2 attached hereto), the parking facilities and all improvements and appurtenances to the building are collectively referred to as the "Building". The Building may be part of a larger complex, and if so, then the Building and any larger complex of which the Building is a part are collectively referred to as the "Project", as shown on Exhibit A-3, attached hereto. No easement for light, air or view is granted hereunder or included within or appurtenant to the Leased Premises.

ARTICLE 2 - BASIC LEASE PROVISIONS

2.01 Basic Lease Provisions.

The following provisions set forth various basic terms of this Lease and are sometimes referred to as the "Basic Lease Provisions".

(a)	Building Name:	Keystone Technology Park - Building IV
	Address:	419 Davis Drive Durham, North Carolina 27713 (street address) Morrisville, North Carolina 27560 (mailing address)
(b)	Floor(s):	First (1")
	Suite Number:	600
	Square Feet Area in the Leased Premises:	Approximately 21,210
(c)	Total Area of Building:	Approximately 77,260 square feet
	Total Improved Leasable Area of Building:	Approximately 64,779 square feet
(d)	Base Rent:	
	Initial per Square Foot/Annum:	$10.50
	Initial Annual Base Rent:	$222,705.00
	Initial Monthly Base Rent:	$18,558.75
	Payment Schedule:	See chart below:

Full Month(s) of the Term	Targeted Date(s)	Price Per Square Foot (rounded)	Square Feet	Annual (or for time period noted) Base Rent	Monthly Base Rent
1 through 12	11/1/07 through 10/31/08	$ 10.50	21,210	$ 222,705.00	$ 18,558.75
13 through 24	11/1/08 through 10/31/09	$ 10.81	21,210	$ 229,386.12	$ 19,115.51
25 through 36	11/1/09 through 10/31/10	$ 11.14	21,210	$ 236,267.76	$ 19,688.98
37 through 48	11/1/10 through 10/31/11	$ 11.47	21,210	$ 243,355.80	$ 20,279.65
49 through 60	11/1/11 through 10/31/12	$ 11.82	21.210	$ 250,656.48	$ 20,888.04

Full Month(s) of the Term	Targeted Date(s)	Price Per Square Foot (rounded)	Square Feet	Annual (or for time period noted) Base Rent	Monthly Base Rent
61 through 72	11/1/12 through 10/31/13	$ 12.17	21.210	$ 258,176.16	$ 21,514.68
73 through 84	11/1/13 through 10/31/14	$ 12.54	21,210	$ 265,921.44	$ 22,160.12

(e)	TICAM Expenses for the initial calendar year of the Term:	
	Per Square Foot, Per Annum:	$2.80 per square foot leased
	Initial Monthly Payment:	$4,949.00
(f)	Parking:	4.0 unreserved parking spaces per each 1,000 square feet of space leased (rounded down to nearest whole number). Included in the above parking ratio will be four (4) unreserved parking spaces marked for "visitors" to the Building.
	Monthly Rent per Parking Space:	No additional charge to Tenant
(g)	Term:	7 Year(s) 0Month(s)
(h)	Target Commencement Date:	November 1,2007
	Target Expiration Date:	October 31, 2014
(i)	Security for the Lease:	$25,000.00

(j) Permitted Use: General office, laboratory, research and development, and light manufacturing
Permitted Maximum Occupancy: 84 persons (rounded down to nearest whole number)

(k) Addresses for notices and other communications (except for Rent payments) under this Lease:

Landlord	Tenant
GRE Keystone Technology Park One LLC c/o Capital Associates 1100 Crescent Green, Suite 200 Cary, North Carolina 27518 (919)233-9901	Liquidia Technologies, Inc. 627 Davis Drive, Suite 500 Durham, North Carolina 27713 (street address) Morrisville, North Carolina 27560 (mailing address) Attn: Bruce Boucher (919)
	With a copy to: Kathy Worm, Esq. Hutchison Law Group PLLC 5410 Trinity Road, Suite 400 Raleigh, North Carolina 27607 (919) 829-4321

Landlord's address for Rent payments under this Lease:
GRE Keystone Technology Park One LLC
P.O. Box277327
Atlanta. GA 30384-7327

(l) Broker: Capital Associates
Co-Broker: Colliers Pinkard

(m) Tenant's Other Lease. Landlord and Tenant specifically acknowledge and agree that, as of the date of this Lease, (i) Tenant is in occupancy of approximately 4,401 rentable square feet of flex space contained in Suite 500 of another building in the Project, known as Keystone Technology Park - Building VII and

located at 627 Davis Drive, Durham, North Carolina 27713, pursuant to a separate lease agreement with an execution date of April 14, 2005, by and between another landlord in the Project, GRE Keystone Technology Park Two LLC, successor by acquisition of Technology V1I-IX, LLC and Tenant (as such may be amended, "Tenant's Other Lease"), and (ii) Tenant's Other Lease has an expiration date of August 31, 2010.

ARTICLE 3 - TERM AND POSSESSION

3.01 Term.

(a) This Lease shall be and continue in full force and effect for the term set forth in Subsection 2.01(g), as it may be modified, renewed and extended pursuant to Exhibit G or by written agreement between Landlord and Tenant (the "Term"). Subject to the remaining provisions of this Article, the "Commencement Date" shall be the date on which Landlord tenders possession of the Leased Premises to Tenant, which such date is anticipated to be the Target Commencement Date shown in Subsection 2.01(h). The Term shall commence on the Commencement Date and shall expire, without notice to Tenant, on the last day of the last month of the Term (the "Expiration Date") (*i.e.* if the Commencement Date is other than the first (1) day of the month, the Expiration Date shall nevertheless be the last day of the last month of the Term).

(b) If the Commencement Date and Expiration Date are different from the Target Commencement Date and the Target Expiration Date, respectively, as set forth in Subsection 2.01(h), Landlord shall prepare and, Landlord and Tenant shall execute an amendment to the Lease setting forth such actual dates, and adjusting any Base Rent payment schedule, if applicable. If such amendment is not executed, the Commencement Date and Expiration Date shall be conclusively deemed to be the Target Commencement Date and the Target Expiration Date set forth in Subsection 2.01(h).

(c) Upon the expiration or other termination of this Lease, Landlord shall have the right to immediately re-enter and take possession of the Leased Premises.

3.02 Commencement.

(a) Subject to Section 3.03 hereof, if, (i) any of the work described in Exhibit C that is required to be performed by Landlord or Landlord's contractors) to prepare the Leased Premises for occupancy has not been substantially completed on or before the Target Commencement Date or (ii) Landlord is unable to tender possession of the Leased Premises to Tenant on the Target Commencement Date, then the Commencement Date (and commencement of installments of Base Rent) shall be postponed until Landlord is able to tender possession of the Leased Premises to Tenant with the work to be performed in the Leased Premises having been substantially completed and the postponement shall operate to extend the Expiration Date in order to give full effect to the stated duration of the Term.

(b) The Leased Premises shall be deemed to be substantially complete the day after inspection and approval for occupancy for the intended use, whether permanent, conditional, or temporary, by the City of Durham, North Carolina, provided said approval is subsequently evidenced by a certificate of occupancy, whether permanent, conditional, or temporary, issued by said municipality, which such certificate of occupancy may be dated when actually processed by such municipality, rather than the date of the inspection and approval for occupancy.

(c) The deferment of installments of Base Rent shall be Tenant's exclusive remedy for postponement of the Commencement Date, and Tenant shall have no, and waives any, claim against Landlord because of any such delay.

3.03 Tenant's Delay.

No delay in the completion of the Leased Premises resulting from delay or failure on the part of Tenant in furnishing information or other matters required in Exhibit C, and no delay resulting from any cause set forth in Section 6 of Exhibit C, shall delay the Commencement Date, Expiration Date or commencement of payment of Rent (as defined in Section 4.02 below). In addition to the foregoing, in the event any laboratory related material(s), equipment, or fixtures contained in the Upfit (defined in Exhibit C) requires more than eight (8) weeks to deliver to the Leased Premises for construction as part of the Upfit, then the time that is greater than eight (8) weeks for

Landlord's receipt of such item shall also constitute a Tenant delay (*e.g.*, if it takes nine (9) weeks for Landlord to receive an item contained in the Upfit then one (1) week of such time shall be a Tenant delay).

3.04 Tenant's Possession.

Except as specifically set forth in Exhibit C, Section 7, if, prior to the Commencement Date, Tenant shall enter into possession of all or any part of the Leased Premises and conducts any portion of its business operations therein, the Term, the payment of monthly installments of Base Rent and all other obligations of Tenant to be performed during the Term shall commence on, and the Commencement Date shall be deemed to be, the date of such entry; provided, no such early entry shall operate to change the Expiration Date.

3.05 Acceptance of Leased Premises.

Tenant shall confirm its acceptance of the Leased Premises by execution of the Acceptance of Leased Premises Memorandum attached hereto as Exhibit B. Tenant shall execute and deliver such Acceptance of Leased Premises Memorandum to Landlord within ten (10) business days of receipt thereof, and Tenant's failure to do same shall be considered an event of default under this Lease.

3.06 Holdover.

If Tenant shall remain in possession of the Leased Premises after the expiration or earlier termination of this Lease without the execution of a new lease or an amendment to this Lease extending the Term, Tenant shall become a tenant-at- sufferance, and for a period of sixty (60) calendar days after such termination or expiration, as the case may be, shall pay daily rent at one hundred fifty percent (150%) of the per day Rent (as defined in Section 4.02) payable with respect to the last full calendar month immediately prior to the end of the Term or termination of this Lease, but otherwise shall be subject to all of the terms, conditions, provisions and obligations of this Lease, and such tenancy may be terminated at any time on seven (7) calendar days' prior written notice. After such sixty (60) day period Tenant shall continue to be a tenant-at-sufferance, terminable on one (1) day's notice, and shall pay daily rent at double the per day Rent payable with respect to the last full calendar month immediately prior to the end of the Term or termination of this Lease, but otherwise shall be subject to all of the obligations of Tenant under this Lease. Tenant shall indemnify Landlord (i) against all claims for damages by any other tenant to whom Landlord may have leased all or any part of the Leased Premises effective upon the termination or expiration of this Lease, and (ii) for all other losses, costs and expenses, including consequential damages and reasonable attorneys' fees, sustained or incurred by reason of such holding over. In the event of any holdover and failure of Tenant to pay the holdover rent set forth herein, Landlord shall have the right to immediately apply the Security (as defined and set forth in Section 4.07) to the Rent, at the holdover rate set forth herein, for as many days as would be represented by the amount of the Security. Nothing contained herein shall be construed as a consent by Landlord to any holding over by Tenant. The rights and obligations contained in this Section shall survive the expiration or other termination of this Lease.

3.07 Condition of Leased Premises.

(a) As of the Commencement Date of the Lease, to the best of Landlord's knowledge, the Leased Premises and the Total Improved Leasable Area of Building (including the roof) (i) shall comply with all applicable laws, statutes, orders, ordinances, rules and regulations, including, without limitation, all applicable mechanical, electrical and plumbing codes (the "Laws"), (ii) shall be suitable for the purpose for which they are let, and (iii) shall be in good repair and condition.

(b) (i) Notwithstanding the foregoing, Tenant expressly understands and agrees that Tenant shall be obligated to fully pay for any work and materials required to bring the Leased Premises into compliance with all applicable laws, statutes, orders, ordinances, rules, regulations and mechanical, electrical and plumbing codes when such required work arises out of any one (1) or more of the following: (A) Tenant's use of the Leased Premises, or a portion of the Leased Premises, for anything other than general office purposes (*i.e*., "other than general office purposes" shall include, but not be limited to, laboratory, research and development, and light manufacturing purposes); (B) the fact that the square footage of the Leased Premises is less than that of the Total Improved Leasable Area of Building as such is stated in Section 2.01(c); (C) Tenant's desired configuration of the Leased Premises or a portion of the Leased Premises; (D) any changes in applicable laws, statutes, orders, ordinances, rules, regulations and/or mechanical, electrical and plumbing codes which become effective after the Commencement Date. Landlord expressly understands and agrees that any work and the need for materials arising

out of that which is described in subsections (b)(i)(A) through (b)(i)(D) above may be paid for out of the Allowance and/or the Additional Allowance (as described and set forth in Exhibit C and Section 4.09).

(ii) Subject to subsections (b)(i) (A) through (C) above. Landlord shall be fully responsible for any costs associated with any work or materials required to be completed in order to make the Leased Premises and the Total Improved Leasable Area of Building compliant with the Laws as of the Commencement Date, and, notwithstanding Section 9.06 of this Lease (Default by Landlord), in the event a violation of the Laws is discovered during construction of the Upfit, and such violation does not arise out of any of the circumstances stated in subsection (b)(i) (A) through (C) above, Landlord shall, in good-faith and using commercially reasonable efforts, diligently proceed to remedy any such violation.

(c) Landlord further agrees to use its best efforts to cause the Upfit (defined in Exhibit C) to be constructed in a good and workmanlike manner. Upon the completion of the Upfit, Landlord and Tenant shall perform a "walk-through" of the Leased Premises and shall compile a "punch-list" of remaining Upfit items to be completed by Landlord within thirty (30) days of the walk-through of the Leased Premises.

ARTICLE 4 - RENT AND SECURITY FOR THE LEASE

4.01 Base Rent.

Tenant shall pay to Landlord rent ("Base Rent") beginning on the Commencement Date and throughout the Term in the amount of the Annual Base Rent. Tenant's obligation to pay Rent is independent of any obligation of Landlord under this Lease. Base Rent shall be payable in monthly installments in the amount set forth in Subsection 2.01(d) ("Monthly Base Rent") in advance and without demand, deduction or offset, on the first day of each and every calendar month during the Term. If the Commencement Date is not the first day of a month, Tenant shall be required to pay on the Commencement Date a pro rata portion of the Initial Monthly Base Rent for the first partial month of the Term. However, any references to any "month" of the Term elsewhere in this Lease shall mean a full month of the Term.

4.02 Payment of Rent.

As used in this Lease, "Rent" shall mean the Base Rent, Additional Rent (defined below), late charges, and all other amounts required to be paid by Tenant pursuant to this Lease. The Rent shall be paid at the times and in the amounts provided herein by check drawn on a United States of America bank to Landlord at its address specified in Subsection 2.01(k) above, or to such other person or at such other address as Landlord may from time to time designate in writing. The Rent shall be paid without notice, demand, abatement, deduction or offset except as may be expressly set forth in this Lease.

4.03 Additional Rent

The term "Additional Rent" shall mean the total of the "TICAM Expense Adjustment", as such term is defined below, and any other amounts in addition to Base Rent which Tenant is required to pay to Landlord under this Lease, including, but not limited to, Tenant's repayment to Landlord of the Amortized Allowance (defined in Section 4.09).

4.04 TICAM Expense Adjustment

(a) If the TICAM Expenses (defined below) for the Building for any calendar year, expressed on a per square foot basis, exceed the TICAM Expenses for the initial calendar year of the Term specified in Subsection 2.01(e), Tenant shall pay to Landlord increased Rent (a "TICAM Expense Adjustment") in an amount equal to the product of such excess times the square feet of the Leased Premises as stated in Subsection 2.01(b). The TICAM Expense Adjustment shall be payable in monthly installments on the first day of each calendar month based on Landlord's estimate of the TICAM Expenses for the then current year.

(b) Landlord may at any time give Tenant written notice specifying Landlord's estimate of the TICAM Expenses for the then current calendar year or the subsequent calendar year and specifying the TICAM Expense Adjustment to be paid by Tenant for each such year, and Tenant shall adjust its payments accordingly beginning with the monthly installment immediately following Landlord's notice.

(c) Within one hundred twenty (120) calendar days after the end of each calendar year, Landlord shall give written notice to Tenant specifying the actual TICAM Expenses for the prior calendar year and any necessary adjustment to the TICAM Expense Adjustment paid by Tenant for that calendar year (the "Notice"). Tenant shall pay any deficit amount to Landlord within thirty (30) calendar days after receipt of Landlord's written notice. Any excess payment by Tenant for the prior calendar year shall reduce the TICAM Expense Adjustment for the following calendar year. If there is any excess payment applicable to the last year of the Term, Landlord shall refund such excess to Tenant within thirty (30) calendar days of sending the Notice applicable to the final year of the term. This obligation shall survive termination of this Lease Notwithstanding the foregoing, for purposes of determining Tenant's annual TICAM Expense Adjustment in any calendar year of the Term, the TICAM Expenses which are controllable by Landlord (the "Controllable Expenses") shall not exceed the Controllable Expenses for the first (1st) calendar year of the Term increased at a rate of five percent (5%), compounded annually. There shall be no such limitation with respect to taxes, insurance, utilities, refuse collection, snow removal, and any other TICAM Expense item not within Landlord's reasonable control (the "Uncontrollable Expenses"). All other TICAM Expenses, other than the Uncontrollable Expenses, shall be Controllable Expenses.

(d) Tenant shall have the right, one (1) time per year, upon written notice to Landlord, within sixty (60) calendar days of receipt of the Notice, to have Landlord's books and records relating solely to TICAM Expenses contained in the statement for the prior year, reviewed. If Landlord's calculation of TICAM Expenses fails to comply with the requirements of this Section 4.4 or contains any other error, as determined by the review, Tenant's past payments of its proportionate share of TICAM Expenses for the subject year shall be adjusted in accordance with the results of the review, and appropriate payments shall be made by Landlord or Tenant, as the case may be, within forty-five (45) calendar days after completion of the review.

(e) All books and records necessary to accomplish any review permitted under this Section 4.04 shall be retained by Landlord for a period of one (1) year, and shall be made available to the person conducting the review at the Building, Project or the office of Landlord's property manager, during normal business hours. All of Landlord's and Tenant's costs of the review shall be paid by Tenant unless the review reveals that total TICAM Expenses controllable by Landlord were misstated by five percent (5%) or more in the calendar year reviewed, in which case Landlord shall

reimburse Tenant for Tenant's reasonable cost of the review, not to exceed One Thousand Five Hundred Dollars ($1,500.00). The rights and obligations contained in this Section 4.04 shall survive the expiration or other termination of this Lease.

(f) The term "TICAM Expenses" shall mean, except as otherwise specified in this definition, all expenses, costs, and disbursements of every kind and nature, computed on an accrual basis, which Landlord shall pay or become obligated to pay because of or in connection with the ownership and operation of the Building, or Landlord's efforts to reduce TICAM Expenses, including, without limitation:

(1) wages and salaries of all employees to an extent commensurate with such employees' involvement in the operation, repair, replacement, maintenance, and security of the Building, including, without limitation, amounts attributable to the employer's Social Security Tax, unemployment taxes, and insurance, and any other amount which may be levied on such wages and salaries, and the cost of all insurance and other employee benefits related thereto;

(2) all supplies and materials used in the operation, maintenance, repair, replacement and security of the Building;

(3) the rental costs of any and all leased capital improvements and the annual amortization of any and all capital improvements made to the Building which, although capital in nature, can reasonably be expected to reduce the normal operating costs of the Building, to the extent of the lesser of such expected reduction in TICAM Expenses or the annual amortization of such capital improvements, as well as all capital improvements made in order to comply with any legal requirement hereafter promulgated by any governmental authority including, but not limited to, requirements relating to the environment, energy, conservation, public safety, access for the disabled or security, as amortized over the useful life of such improvements by Landlord for federal income tax purposes;

(4) the cost of all utilities for the Building, other than the cost of utilities supplied to tenants of the Building which are separately metered or reimbursed to Landlord by such tenants;

(5) the cost of all maintenance and service agreements with respect to the operation of the Building or any part thereof, including, without limitation, trash removal from a Building common area dumpster, management fees, alarm service, equipment, landscape maintenance and parking area maintenance and operation;

(6) the cost of all insurance relating to the Building and each of the premises contained therein, including, without limitation, casualty and liability insurance applicable to the Building and Landlord's personal property used in connection therewith;

(7) all taxes and assessments and governmental charges, whether federal, state, county, or municipal, and whether by taxing districts or authorities presently taxing or by others, subsequently created or otherwise, including all taxes levied or assessed against or for leasehold improvements and any other taxes and assessments attributable to the Building and the operation thereof, together with the reasonable cost (including attorneys, consultants and appraisers) of any negotiation, contest or appeal pursued by Landlord in an effort to reduce any such tax, assessment or charge, excluding, however, federal and state taxes on Landlord's income, but including all rental, sales, use and occupancy taxes or other similar taxes, if any, levied or imposed by any city, state, county, or other governmental body having j jurisdiction;

(8) the cost of all repairs, replacements, removals and general maintenance with respect to the Building, including without limitation, the exterior walls, doors, windows, roof, paving, walkways, landscaping and signage;

(9) the cost of all repairs, replacements, removals and general maintenance of any common plumbing, mechanical, and electrical systems, including without limitation, any fire sprinkler system, whether interior or exterior;

(10) the cost of all repairs, replacements, removals and general maintenance for any structural component of the Building; and

(11) pro rata assessments, based upon acreage, for the costs and expenses of maintaining the common areas of the Building and Project, if applicable, and any assessments owed to any property owners' association.

(g) Specifically excluded from TICAM Expenses are:

(1) expenses for capital improvements made to the Building, other than capital improvements described in Section 4.04(f)(3) above and except for items which, though capital for accounting purposes, are properly considered maintenance and repair items, such as painting of the Building exterior and painting and/or wallpapering of common areas and like items;

(2) expenses for repair, replacement and general maintenance paid by proceeds of insurance or by Tenant or other third parties;

(3) alterations attributable solely to tenants of the Building other than Tenant;

(4) increases in taxes resulting from higher valuations of the Building attributable to Tenant's Upfit (defined in Exhibit C) or alterations made by Tenant in excess of typical up fits in the Building, which increase shall be paid by Tenant as Additional Rent;

(5) depreciation of the Building;

(6) leasing commissions; and

(7) federal and state income taxes imposed on Landlord.

Notwithstanding anything to the contrary in the specific exclusions from TICAM Expenses set forth above, TICAM Expenses shall, also, not include the following:

(i) Landlord's general corporate overhead and general administrative expenses, other than charges for property management and in-house labor provided for maintenance of the Building;

(ii) costs arising from Landlord's charitable or political contributions;

(iii) federal and state income and franchise taxes of Landlord or any other such taxes not in the nature of real estate taxes, except taxes on Rent;

(iv) management fees to the extent they exceed the greater of (a) reasonable, similar costs incurred in comparable office buildings in the Raleigh, North Carolina area, or (b) five percent (5%) of the gross receipts of the Building;

(v) salaries, wages or other compensation paid to officers or executives of Landlord above the level of property manager in their respective capacities;

(vi) overhead and profit increments paid to subsidiaries or affiliates of Landlord for services on or to the Building or Project, to the extent only that the costs of such services exceed competitive costs of such services were they not rendered by a subsidiary or affiliate;

(vii) any compensation paid to clerks, attendants or other persons in commercial concessions operated by Landlord;

(viii) capital expenditures required by Landlord's gross negligence or willful misconduct to comply with laws enacted on or before the Commencement Date of the Lease;

(ix) costs incurred by Landlord for the repair of damage to the Building, to the extent Landlord is reimbursed by insurance proceeds;

(x) renovating or otherwise improving or decorating, painting or redecorating space leased to other tenants or other occupants of the Building;

(xi) costs for sculpture, paintings or other objects of art;

(xii) electrical power costs and other services for which any tenant directly contracts with the local service company;

(xiii) expenses in connection with services or other benefits which are not available to Tenant or for which Tenant is charged directly, but which are not provided to another tenant or occupant of the Building;

(xiv) all items and services for which Tenant has reimbursed Landlord or has paid to third persons;

(xv) any ground lease rental;

(xvi) interest, principal, points and fees on debts, or amortization on any mortgage or other debt instrument encumbering the Building or the Land;

(xvii) legal and other costs associated with the mortgaging, refinancing or sale of the Building, Land or Project or any interest therein;

(xviii) tax penalties incurred as a result of Landlord's gross negligence, willful misconduct or inability to make payments when due;

(xix) any costs and expenses related to or incurred in connection with disputes with tenants of the Building or Land or any lender for the Building or Land; and

(xx) costs associated with leasing or marketing space in the Building, including tenant improvements, advertising, lease commissions, legal fees to negotiate leases, space planning and marketing materials.

(h) If the average occupancy rate for the Building is less than ninety-five percent (95%) in any calendar year of the Term, or if Landlord is providing less than ninety-five percent (95%) of the Building with any item or items of work or service which would constitute a TICAM Expense hereunder, then the amount of the TICAM Expenses for such period shall be adjusted to include any and all items enumerated under the definition of TICAM Expenses set forth in this Subsection which Landlord reasonably determines Landlord would have incurred if the Building had been at least ninety-five percent (95%) leased and occupied with all tenant improvements constructed or if Landlord had been providing such item or items of work or service to at least ninety-five percent (95%) of the Building. If the actual occupancy rate for the Building is ninety-five percent (95%) or greater, then the actual TICAM Expenses shall be used for purposes of determining the TICAM Expense Adjustment described in this Section 4.04.

4.05 Cost of Living Adjustment.

Intentionally deleted.

4.06 Net Lease.

It is the intention of Landlord and Tenant that, except for the costs and expenses specifically provided for herein to the contrary, all costs, expenses and obligations of every kind relating directly or indirectly in any way, foreseen or unforeseen, to Tenant's use, occupancy, possession, maintenance, repair and replacement of the Leased Premises, or any part thereof, which may arise or become due during the Term shall be paid promptly and in full by Tenant and that Landlord shall be indemnified by Tenant therefrom.

4.07 Security for the Lease.

(a) Tenant shall deposit with Landlord on the date Tenant executes this Lease, security for the payment of all Rent and other charges owed by Tenant pursuant to this Lease and the performance by Tenant of all of Tenant's obligations under this Lease in the amount specified in Subsection 2.01(i) (the "Security") on the understanding that: (i) the Security or any portion thereof may be applied to the curing of any default, or the payment of any damages sustained by Landlord due to Tenant's failure to perform its obligations, including, but not limited to, the payment of Rent and any alteration and repair obligations under Article 7 herein, without prejudice to any other remedy or remedies at law or in equity which Landlord may have on account thereof, and upon such application Tenant shall pay Landlord on demand, by check drawn on a United States of America bank, the amount SC applied which shall be added to the remaining balance of the Security so the same will be restored to its original amount; (ii) Landlord shall not be obligated to hold the Security as a separate fund, and may commingle it with other funds; and (iii) within thirty (30) calendar days after the expiration of the Term, provided Tenant is not in default at the expiration of the Term and has delivered exclusive possession of the Leased Premises to Landlord, the remaining balance of the Security shall be returned tc Tenant, without interest, which shall belong to Landlord. Tenant acknowledges that any mortgagee of Landlord will not be liable for the refund of any amount Tenant has paid to Landlord as Security to the extent such amount is not delivered to the mortgagee.

(b) The rights and obligations contained in this Section 4.07 shall survive the expiration or other termination of this Lease.

4.08 Late Charge.

If Tenant fails or refuses to pay any installment of Rent when due, Landlord, shall have the right to collect a late charge of five percent (5%) of the amount of the late payment to compensate Landlord for the additional expense involved in handling delinquent payments and not as interest; provided, however, that Tenant shall be allowed one (1) late payment of Rent in each calendar year of the Term, which late payment shall not be subject to a

late charge hereunder so long as such Rent is paid within five (5) calendar days of the due date. If the payment of a late charge required by this Section is found to constitute interest notwithstanding the contrary intention of Landlord and Tenant, the late charge shall be limited to the maximum amount of interest that lawfully may be collected by Landlord under applicable law, and if any payment is determined to exceed such lawful amount the excess shall be applied to any unpaid Rent then due and payable hereunder and/or credited against the next succeeding installment of Rent payable hereunder. If all Rent payable hereunder has been paid in full, any excess shall be refunded to Tenant Tenant shall reimburse Landlord for any processing fees charged to Landlord as a result of Tenant's checks having been returnee for insufficient funds.

4.09 Amortization of Excess Upfit

If (i) the actual cost of designing and constructing the Upfit (as defined in Exhibit C) exceeds the amount of the Allowance (as defined in Exhibit C) (the "Excess Original Upfit"), and (ii) Tenant has not been in default in the payment of Ren or other sums due more than one (1) time during the Term, and (iii) Tenant provides written notice to Landlord that Tenant elect: to make additional Landlord-approved improvements to the Leased Premises on or before the end of the twenty-fourth (24th) month after the Commencement Date (unless otherwise agreed to by Landlord and Tenant) (the "Additional Upfit"), then Landlord shall pay for, and then receive from Tenant as set forth herein, such excess amount, up to a maximum of Seven Hundred Sixty-Eight Thousand Eight Hundred Sixty-two Dollars and Fifty Cents ($768,862.50) (the "Amortized Allowance"). Such Amortize Allowance shall be amortized using an annual interest rate of seven percent (7%) and shall be payable by Tenant as Additional Rent. Tenant may use all or a portion of such Amortized Allowance for either the Excess Original Upfit or the Additional Upfit To the extent that Tenant uses any portion of the Amortized Allowance for the Excess Original Upfit, then Tenant shall commence payment of such amount on the Commencement Date and such amount shall be amortized over the Term (but not any Renewal Term as defined in Exhibit G) and payable by Tenant as Additional Rent. To the extent that Tenant uses any portion of the Amortized Allowance for the Additional Upfit, then Tenant shall commence payment of such amount as Additional Rent in the month following completion of such Additional Upfit and such amount shall be amortized over the remaining Term (but not an} renewal Term). In the event Tenant desires to exercise this option, Tenant shall so notify Landlord, in writing, and Landlord am Tenant shall promptly enter into an amendment to this Lease setting forth the amount of such Additional Rent.

ARTICLE 5 - SERVICES

5.01 Services.

(a) From and after the Commencement Date, Tenant shall pay or cause to be paid directly to the supplier all rents charges and rates for all utility services related to Tenant's use of the Leased Premises, which may include, without limitation, gas electricity, water, sewer, telephone, trash removal from the Leased Premises and the like, including all utilities necessary for heating and air conditioning the Leased Premises.

(b) If any such utilities are not separately metered or assessed or are only partially separately metered or assessed and are available for use in common with other tenants in the Building, Tenant shall pay to Landlord within ten (10) calendar days of receipt of Landlord's invoice, a proportionate share of such charges for utilities available for use in common based on square footage of space leased to each tenant using such common facilities. Landlord may install re-registering meters and collect any and all utility charges as aforesaid from Tenant, making returns to the proper public utility company or governmental unit, provided that Tenant shall not be charged more than the rates it would be charged for the same services if furnished directly to the Leased Premises by such companies or governmental units.

(c) At the option of Landlord, any utility or related service which Landlord may at any time elect to provide to the Leased Premises may be furnished by Landlord or any agent employed by or independent contractor selected by Landlord, and Tenant shall accept the same therefrom to the exclusion of all other suppliers so long as the rates charged by the Landlord or by the supplier of such utility or related service are competitive.

(d) If Tenant fails to pay any utility bills when due, Landlord shall have the right, after giving Tenant ten (10) calendar days' written notice of Tenant's failure to pay such utility bills, to thereafter pay such delinquent utility bills. Tenant shall reimburse Landlord, within ten (10) calendar days of receipt of Landlord's invoice, for the amount of such delinquent utility bills paid by Landlord together with a surcharge of fifteen percent

(15%) of the amount due. Such sums shall be added to the Rent next due hereunder and shall become Additional Rent for the purposes hereof. Tenant shall be solely responsible for any janitorial service to the Leased Premises.

(e) If (i) the services which Landlord is obligated to provide are continuously interrupted for four (4) consecutive business days ("Interruption"), and (ii) Tenant is unable to conduct business in the Leased Premises, and (iii) Tenant has notified Landlord immediately in writing that Tenant is unable to conduct its business, and (iv) the Interruption is due to the gross negligence or willful misconduct of Landlord, its employees or agents, and such services are not restored by Landlord, if under Landlord's reasonable control, Tenant shall be entitled to an abatement of Rent on a day-for-day basis. The abatement shall begin on the fifth (5th) consecutive business day of the Interruption and shall end automatically when the services are restored.

5.02 Interruption of Services.

Except as otherwise set forth herein, Landlord shall have no liability to Tenant for disruption, interruption or curtailment of any utility service to the Leased Premises, whether or not furnished by Landlord, and in no event shall such disruption, interruption or curtailment constitute constructive eviction or entitle Tenant to an abatement of rent or other charges, nor relieve Tenant from its obligation to fulfill any covenant or agreement hereof.

5.03 Additional Charges.

In the event that any charge or fee is required after the Commencement Date by the State of North Carolina, or by any agency, subdivision or instrumentality thereof, or by any utility company furnishing services or utilities to the Leased Premises, as a condition precedent to furnishing or continuing to furnish utilities or services to the Leased Premises, such charge or fee shall be deemed to be a utility charge payable by Tenant. The provisions of this Section 5.03 shall include, but not be limited to, any charges or fees for present or future water or sewer capacity to serve the Leased Premises, any charges for the underground installation of gas or other utilities or services, and other charges relating to the extension of or change in the facilities necessary to provide the Leased Premises with adequate utility services. In the event that Landlord has paid any such charge or fee after the date hereof, Tenant shall reimburse Landlord for such utility charge with the payment thereof to be Additional Rent for purposes hereof.

ARTICLE 6 - USE AND OCCUPANCY

6.01 Use and Occupancy.

(a) Tenant (and its permitted assignees, subtenants, invitees, customers, and guests) shall use and occupy the Leased Premises solely for the purpose that is specified in Subsection 2.01(i). However, upon Landlord's prior written agreement. Tenant may change such purpose.

(b) Tenant shall not use or occupy the Leased Premises, or permit any portion of the Leased Premises to be used or occupied, for any business or purpose, or in any manner, by any number of persons greater than that specified in Subsection 2.01(j).

(c) Tenant shall not use or occupy the Leased Premises, or permit any portion of the Leased Premises to be used or occupied, for any business or purpose, or in any manner, which (i) is unlawful, disreputable or deemed to be extra-hazardous on account of fire or exposure to or interference from electromagnetic rays and/or fields, (ii) violates the Building Rules, and/or (iii) unreasonably increases the rate of fire insurance coverage on the Building or its contents.

(d) Tenant shall conduct its business and control its employees and agents and all other persons entering the Building under the express or implied invitation of Tenant, in such manner as not to create any nuisance, or interfere with, annoy or disturb any other tenant or Landlord in its operation of the Building.

(e) Tenant shall not grant any concession or license within the Leased Premises or allow any person other than Tenant, its partners, managers, members, officers, directors, employees, consultants and agents to occupy or use the Leased Premises or any portion thereof.

(f) Landlord shall provide Tenant with the number of unreserved parking spaces set forth in Subsection 2.01(f) of this Lease (which number includes Tenant's pro rata share of the total number of spaces for the Building designated for handicapped or visitors), at no additional charge. Landlord shall identify four (4) of such unreserved parking spaces for visitors to the Building. Tenant shall notify Landlord promptly of any additional parking needs, which needs may, in Landlord's sole discretion, be considered on a case-by-case basis.

(g) Tenant may, at Tenant's sole cost and expense, and with prior written approval from Landlord, which approval shall not be unreasonably withheld, and the City of Durham, North Carolina, install Tenant's trademarked logo and tradename with stylized print on the parapet of the Building at or near Tenant's primary entry. Tenant may also install vinyl identification graphics on the front window adjacent to the front door at the Leased Premises. All such signage shall be (i) tastefully and professionally done in a manner consistent with the standard(s) for the Building (but in accordance with Tenant's stylized print), (ii) non-exclusive, and (iii) shall be subject to all federal, state, and local statutes, ordinances, codes and regulations. Following the expiration or earlier termination of this Lease, Landlord shall remove all of Tenant's signage on the parapet of the Building, if any, and repair the Building from any damage caused by such signage, at Tenant's sole cost and expense.

6.02 Care of the Leased Premises.

(a) Tenant shall not commit or allow to be committed any waste or damage to any portion of the Leased Premises, or the Building or the Project, if applicable, nor permit or suffer any overloading of the floors or other use of the improvements that would place an undue stress on the same or any portion thereof beyond that for which the same was designed, and, at the termination of this Lease, by lapse of time or otherwise, Tenant shall deliver up the Leased Premises to Landlord in as good a condition as existed on the date of possession by Tenant, ordinary wear and tear, and loss by insured casualty and condemnation excepted.

(b) Tenant shall not use, suffer or permit the Leased Premises, or any portion thereof, to be used by Tenant, any third party or the public in such manner as might reasonably tend to impair Landlord's title to the Leased Premises, or any portion thereof, or in such manner as might reasonably make possible a claim or claims of adverse usage or adverse possession by the public, as such, or third persons, or of implied dedication of the Leased Premises, or any portion thereof. Tenant shall have no authority, express or implied, to create or place any lien or encumbrance of any kind or nature whatsoever upon, or in any manner to bind, the interest of Landlord in the Leased Premises for any claim in favor of any person dealing with Tenant including those who may furnish materials or perform labor for any construction or repairs, and each such claim shall affect and each such lien shall attach to, if at all, only the interest of Tenant in the Leased Premises. Tenant shall pay or cause to be paid all sums legally due and payable by it on account of any labor performed or materials furnished in connection with any work performed on the Leased Premises, and Tenant shall save and hold Landlord harmless from any and all loss, cost or expense based on or arising out of asserted claims or liens against the Leased Premises or Tenant's interest therein or against the rights, titles and interests of Landlord in the Leased Premises or under the terms of this Lease.

(c) Tenant shall notify Landlord at least ten (10) business days prior to vacating the Leased Premises and shall arrange to meet with Landlord to jointly inspect the Leased Premises. If Tenant does not give such notice or meet for such joint inspection, then Landlord's inspection of the Leased Premises shall be deemed accurate for the purpose of determining Tenant's responsibility for repair and restoration of the Leased Premises.

(d) In the event Tenant has not removed all of its equipment and personal property from the Leased Premises within five (5) calendar days of the expiration or other termination of this Lease, then Landlord shall have the right to (i) remove Tenant equipment and personal property from the Leased Premises, and/or (ii) retain, dispose of or sell any or all of Tenant's equipment and persona] property, all without incurring any liability to Tenant whatsoever, and in the event of any such sale, Landlord shall have the right to immediately apply the proceeds of the sale and/or the Security to any amount(s) due under this Lease, including the costs of such removal, retention, disposal and/or sale.

(e) The rights and obligations contained in this Section 6.02 shall survive the expiration or other termination of this Lease.

6.03 Hazardous or Toxic Materials.

(a) When used herein, the term "Hazardous or Toxic Material(s)" shall include all materials and substances which have been determined to be hazardous to health or the environment and are regulated by applicable federal, state and/or local laws, as the same may be amended from time to time, and all rules, regulations, ordinances, opinions, orders and directives issued or promulgated pursuant to or in connection with said laws by any governmental or quasi-governmental agency, body or authority having jurisdiction ("Environmental Law(s)").

(b) Tenant shall not cause or allow to occur any violation of any Environmental Laws on, under or about the Leased Premises, the Building or the Project. Whenever any Environmental Law requires the "owner or operator" to do any act, Tenant shall do such act at its sole cost and expense with respect to matters or conditions arising out of Tenant's use or occupancy of the Leased Premises.

(c) Except as otherwise set forth herein, Tenant shall not cause or allow the receipt, storage, use, generation, manufacture, refining production, processing, location, handling or disposal anywhere in, on, under or about the Leased Premises, the Building or the Project, or the transportation to or from the Leased Premises, the Building or the Project, of any product, material or merchandise which is explosive, highly inflammable, injurious to health, or a Hazardous or Toxic Material.

(d) Notwithstanding the foregoing, Tenant shall not be in breach of this provision as a result of the presence in the Leased Premises of Hazardous or Toxic Materials which are in quantities reasonably necessary for or incidental to Tenant's normal and customary conduct of business and are in strict compliance with all Environmental Laws.

(e) Landlord acknowledges that Tenant will be using the substances listed in Exhibit F. as such Exhibit may be amended in writing from time to time by the parties, in the Leased Premises, which use shall nevertheless be in accordance with all Environmental Laws. During the Term, Tenant shall provide to Landlord all information regarding the use, generation, storage, transportation and/or disposal of Hazardous or Toxic Materials within ten (10) business days of Landlord's written request (which such request may be sent by electronic mail (e-mail)). If Tenant fails to fulfill any duty imposed under this subsection (e) within said ten (10) business day period. Landlord shall have the right to prepare, and in such case Tenant shall fully cooperate with Landlord in the preparation of, all documents Landlord reasonably deems necessary or appropriate to determine the applicability of any Environmental Laws to the Premises and Tenant's use thereof, and for compliance therewith, and Tenant shall execute all such documents within five (5) business days of Landlord's request. No such action by Landlord and no attempt(s) made by Landlord to mitigate damages under any Environmental Law shall constitute a waiver of any of Tenant's obligations under this Lease.

(f) Tenant shall, at Tenant's own cost and expense: (i) comply with all Environmental Laws, and (ii) make all submissions to, provide all information required by, and comply with all requirements of all governmental and quasi-governmental agencies, bodies and authorities having jurisdiction (the "Authority(ies)") under the Environmental Laws arising in connection with its obligations under this Section 6.03.

(g) Should any Authority or any third party demand that a cleanup plan be prepared and that a cleanup be undertaken because any deposit, spill, discharge or other release of Hazardous or Toxic Material(s) occurs in the Leased Premises, the Building or elsewhere in the Project (and such deposit, spill, discharge or other release of Hazardous or Toxic Material(s) was caused by Tenant or Tenant's partners, managers, members, officers, directors, employees, shareholders, agents, contractors, customers or any person entering the Leased Premises, Building or Project under the express or implied invitation of Tenant) during the Term from Tenant's use or occupancy of the Leased Premises, then Tenant shall, at Tenant's own cost and expense, prepare and submit the required plans and all related bonds and other financial assurances, and Tenant shall carry out all such cleanup plans at Tenant's own expense, or at Landlord's option, reimburse Landlord for the cost of each of the foregoing.

(h) In addition to the foregoing, Tenant acknowledges that Landlord shall have the right to obtain, at Tenant's sole cost and expense, a report from an independent third-party consultant that is satisfactory to Landlord (with Landlord acting reasonably in its selection), in a form that provides detailed information about the extent to which any Hazardous or Toxic Materials are present in the Leased Premises and that includes a warranty of the accuracy of the information provided, at the request of Landlord at least sixty (60) calendar days prior to the

scheduled Expiration Date (as such may be extended per written agreement between Landlord and Tenant) or other termination of this Lease. In the event such report indicates the presence of any Hazardous or Toxic Materials in the Leased Premises above the levels established by the applicable Authorities, Tenant shall arrange for the clean-up of the Leased Premises by a company that is satisfactory to Landlord (with Landlord acting reasonably in its approval), in strict and complete compliance with all applicable Environmental Laws, prior to the Expiration Date or other termination of this Lease, at Tenant's sole cost and expense, and Tenant shall arrange to have the Leased Premises re-inspected by such consultant and to have another report issued. Tenant's responsibility to arrange and pay for such clean-up(s) and re- inspection^) shall continue until the consultant's report warrants that the Leased Premises are completely free of Hazardous or Toxic Materials or that the residue levels of any such Hazardous or Toxic Materials are within legal limits.

(i) The rights and obligations contained in this Section 6.03 shall survive the expiration or other termination of this Lease.

6.04 Entry for Repairs and Inspection.

Tenant shall, upon at least twenty-four (24) hours advance notice by Landlord, except in the case of an emergency when no notice is required, permit Landlord and its contractors, agents and representatives to enter into and upon any part of the Leased Premises at all reasonable hours and for a reasonable length of time to inspect the same, make repairs, or show the same to prospective lenders or purchasers at any time during the Term and during the last six (6) months of the Term (or, in the event Tenant is not in occupancy of the Leased Premises, during the last twelve (12) months of the Term) show the same to prospective tenants, and for any other purpose as Landlord may deem necessary or desirable. Landlord or its contractor(s), agent(s) or representative(s) shall be accompanied by a representative of Tenant at all times while in the Leased Premises, except in the case of an emergency or as otherwise agreed to by Landlord and Tenant. Tenant shall not be entitled to any abatement or reduction of Rent by reason of any such entry. In the event of an emergency, when entry to the Leased Premises shall be necessary, and if Tenant shall not be personally present to open and permit entry into the Leased Premises, Landlord or Landlord's agent may enter the same by master key, code, card or switch, or may forcibly enter the same, without rendering Landlord or such agents liable therefor, and without, in any manner, affecting the obligations and covenants of this Lease.

6.05 Compliance with Laws; Rules of Building.

(a) Tenant shall comply with, and Tenant shall cause its employees and agents and all other persons entering the Building under the express or implied invitation of Tenant to comply with, all laws, ordinances, orders, rules, regulations (state, federal, municipal and other agencies or bodies having any jurisdiction thereof), and any recorded covenants, conditions and restrictions of the Project, which relate to the use, condition or occupancy of the Leased Premises, the Building or the Project, including, without limitation, all local, state and federal environmental laws, and the Building Rules, attached hereto and incorporated herein as Exhibit D. as such are reasonably altered by Landlord from time to time, provided that Tenant receives a written copy of such amended Building Rules.

(b) Landlord represents and warrants, to the best of its knowledge and based upon no independent investigation that, as of the date of this Lease, Landlord has complied with all laws, ordinances, orders, rules and regulations (state, federal, municipal and other agencies or bodies having any jurisdiction thereof) relating to the use, condition or occupancy of the Building, including the Americans with Disabilities Act of 1990 ("ADA").

6.06 Access to Building.

(a) Subject to Section 6.01 and the other terms and conditions set forth below, Subject to the terms and conditions set forth below and in this Lease, Tenant and its employees shall have access to the Building and the Leased Premises twenty-four (24) hours a day, three hundred sixty-five (365) days per year. Except as set forth herein, Tenant shall have no right of access to the roof of the Leased Premises or the Building or to the roof of any building in the Project. Tenant shall have right of access to the roof of the Building in case of a roof malfunction or mechanical failure of equipment located on the roof of the Building when resolution of the problem is critical to the conduct of Tenant's business; provided, however, Tenant must notify Landlord in advance of any such roof access, and Landlord's representative shall accompany Tenant and provide Tenant with such roof access to the Building. In the event Landlord fails to provide such roof access to Tenant within four (4) hours of Tenant's notification to Landlord, then Tenant may then gain access to the roof of the Building without Landlord's

representative accompanying Tenant. In addition to the foregoing, Tenant may, with forty-eight (48) hours advance notice to Landlord, and provided Tenant is accompanied by a representative of Landlord, have access to the rooftop of the Building for normal maintenance of the mechanical systems that are located thereon. Landlord expressly reserves the right, in its sole discretion, to temporarily or permanently change the location of, close, block and otherwise alter any entrances, corridors, skywalks, tunnels, doorways and walkways leading to or providing access to the Building or any part thereof and otherwise restrict the use of same provided such activities do not unreasonably impair Tenant's access to the Leased Premises, common areas and parking areas. Landlord shall not incur any liability whatsoever to Tenant as a consequence thereof. Such activities shall not be deemed to be a breach of any of Landlord's obligations hereunder. Landlord shall exercise good faith in notifying Tenant a reasonable time in advance of any alterations, modifications or other actions of Landlord under this Section.

(b) Unless caused by the gross negligence or willful misconduct of Landlord, Tenant expressly agrees that neither Landlord nor Landlord's partners, managers, members, agents, officers, directors or employees shall be liable to Tenant or Tenant's partners, managers, members, agents, officers, directors and employees, or to any person entering, for any reason whatsoever, the Leased Premises, Building or Project, for any injury, death, loss or damage arising out of any crime attempted or committed in the Leased Premises, Building or Project.

6.07 Peaceful Enjoyment

Tenant shall and may peacefully have, hold and enjoy the Leased Premises without interference from any party claiming by or through Landlord, subject to the terms of this Lease, provided Tenant pays the Rent and other sums required to be paid by Tenant and performs all of Tenant's covenants and agreements herein contained. This covenant and any and all other covenants of Landlord contained in this Lease shall be binding upon Landlord and its successors only with respect to breaches occurring during its and their respective ownership of Landlord's interest in the Building. Landlord shall not be responsible for the acts or omissions of any other tenant or third party that may interfere with Tenant's use and enjoyment of the Leased Premises; provided, however, that Landlord shall use its reasonable best efforts to enforce the Building Rules.

6.08 Relocation.

Intentionally deleted.

ARTICLE 7 - CONSTRUCTION, ALTERATIONS AND REPAIRS

7.01 Construction.

(a) Prior to the start of the Term, Landlord shall, at its expense up to the amount of the Allowance (as defined in Exhibit C) design and construct the Upfit (as defined in Exhibit C) in the Leased Premises in accordance with the Workletter Agreement set forth in Exhibit C. Any cost incurred by Landlord for the design, demolition (if applicable), and construction of the Upfit, in excess of the Allowance shall be paid by Tenant as stated in Exhibit C. Notwithstanding the foregoing, any increases in taxes resulting from higher valuations of the Building attributable to Tenant's Upfit or alterations in excess of typical up fits in the Building shall be paid by Tenant as Additional Rent.

(b) In addition to the Upfit (i.e., the costs of construction of the loading dock will not be deducted from or part of the Allowance) , on or before the Commencement Date, Landlord shall, at a cost to be borne equally between Landlord and Tenant, construct a commercially reasonable loading dock on the back of the Leased Premises. Landlord shall pay for the construction of the loading dock and Tenant shall pay its portion of the loading dock construction within ten (10) business days of receipt of Landlord's invoice therefor,

7.02 Alterations.

(a) Tenant shall make no alterations, installations, additions or improvements in, on or to the Leased Premises without Landlord's prior written consent, which consent shall not be conditioned or delayed. All such work shall be designed and made in a manner, and by architects, engineers, workmen and contractors, reasonably satisfactory to Landlord. All alterations, installations, additions and improvements (including, without limitation, paneling, partitions, millwork and fixtures) made by or for Tenant to the Leased Premises shall remain upon and be surrendered with the Leased Premises and become the property of Landlord at the expiration or termination of this Lease or the termination of Tenant's right to possession of the Leased Premises; provided.

Landlord may require Tenant to remove any or all of such items that are not Building standard upon the expiration or termination of this Lease or the termination of Tenant's right to possession of the Leased Premises in order to restore the Leased Premises to the condition existing at the time Tenant took possession. Landlord shall inform Tenant, at the time of Tenant's request for any such non-Building standard alterations, installations, additions or improvements, of Landlord's requirement to have same removed at the expiration or other termination of this Lease.

(b) In addition to the foregoing, Tenant shall, within fifteen (15) calendar days of Landlord's written request, provided such Landlord request is made within three (3) months after the expiration or earlier termination of this Lease, remove all telephone, data wiring and fire suppression systems installed by Tenant from the Leased Premises, and Tenant shall repair any damage to the Leased Premises caused by any such removal. Tenant shall bear the costs of removal of Tenant's property from the Building and of all resulting repairs thereto.

(c) All work performed bv Tenant with respect to the Leased Premises shall (i) not alter the exterior appearance of the Building or adversely affect the structure, safety, systems or services of the Building; (ii) comply with all Building safety, fire and other codes and governmental and insurance requirements; (iii) be completed promptly and in a good and workmanlike manner; (iv) be performed in a manner that does not cause interference or disharmony with any labor used by Landlord, Landlord's contractors or mechanics or by any other tenant or such other tenant's contractors or mechanics; and (v) not cause any mechanic's, materialman's or other similar liens to attach to Tenant's leasehold estate. Tenant shall not permit, or be authorized to permit, any liens (valid or alleged) or other claims to be asserted against Landlord or Landlord's rights, estates and interests with respect to the Building, the Project or this Lease in connection with any work done by or on behalf of Tenant, and Tenant shall indemnify and hold Landlord harmless against any such liens. Tenant shall provide Landlord with a copy of all final lien waivers from any general contractor and any subcontractors or suppliers) of goods or services in connection with any work done by or on behalf of Tenant in the Leased Premises.

(d) Notwithstanding the foregoing, Tenant shall, at Tenant's sole cost and expense, with Landlord's consent, which consent shall not be unreasonably withheld, have the right to make minor, non-structural improvements or minor decorations within the Leased Premises which are cosmetic in nature, employing contractors selected by Tenant and approved by Landlord in Landlord's reasonable discretion, provided such improvements/decorations: (i) are in keeping with the standards of Tenant's existing Leased Premises, (ii) do not affect the structure of the Building or the electrical, mechanical, plumbing or life safety systems of the Building, and (iii) do not cost, or result in expenses of. more than Ten Thousand Dollars ($10,000.00) total per annum.

(e) (i) Further notwithstanding the foregoing, Landlord shall allow Tenant to install, at Tenant's sole cost and expense, one (1) diesel fueled back-up generator (the "Back-up Generator") to serve the Leased Premises, and no other back-up or emergency generator shall be allowed. The Back-up Generator shall be located on the Land in a location selected by Landlord in Landlord's sole discretion. The Back-up Generator and all equipment associated with the Back-up Generator shall be placed and screened in a manner acceptable to Landlord, at Landlord's sole discretion. The diesel fuel tank shall be factory integrated by the manufacturer of the Back-up Generator, shall be above ground, shall have a containment area under and around the fuel tank, and shall be subject to all of the same provisions and conditions as for the Back-up Generator. If requested by Landlord before the Expiration Date, Tenant shall remove any such Back-up Generator at the expiration or earlier termination of this Lease or any renewals of the Term. If requested by Landlord after the Expiration Date or earlier termination of this Lease, Tenant shall remove any such Back-up Generator within sixty (60) calendar days following Landlord's request. In either case. Tenant shall repair any damage caused by such removal at Tenant's sole cost and expense. Tenant hereby specifically agrees that all periodic testing of the Back-up Generator and/or Back-up Generator equipment shall be conducted either before or after normal business hours (normal business hours are 8:00 a.m. through 6:00 p.m. Monday through Friday) in order to avoid disruption to other tenants in the Building. In addition to the foregoing. Tenant shall indemnify and hold harmless Landlord, its members, managers, agents, employees, and other tenants in the Building, from all loss, costs, expense, liability or damages incurred due to the presence, operation, maintenance and/or repair of the Back-up Generator and the diesel fuel tank reference herein or any replacements of same.

(ii) Tenant, at Tenant's sole cost and expense, shall be solely responsible for the operation (including all electrical costs), maintenance, repairs) and replacement(s) for and to the Back-up Generator, shall ensure that performance of the same shall be conducted in a commercially reasonable fashion, and shall

provide Landlord with copies, at least one (1) time per year, of all service contracts evidencing such maintenance and all documentation related to repairs and replacements.

(iii) Tenant shall ensure that the Back-up Generator and all items related thereto shall be, as of their respective installation dates, and shall remain, in full compliance with all applicable laws, rules, regulations and orders (including environmental).

(f) The provisions of this Section 7.02 shall survive the expiration or other termination of this Lease.

7.03 Maintenance and Repairs by Tenant.

(a) Tenant, at its sole cost and expense and at all times, throughout the term of this Lease, shall take good care of the Leased Premises, and shall keep the same safe and in good order, condition and repair, and irrespective of such agreement to repair, shall make and perform all routine maintenance thereof and all necessary repairs thereto, which are nonstructural, ordinary and extraordinary, foreseen and unforeseen, and of every nature, kind and description, but excluding the items listed in Sections 4.4(f) (9) and (10). Notwithstanding anything to the contrary in this Lease, Tenant shall also maintain its exterior heating, ventilating and air conditioning systems, as well as any other improvements installed for or by Tenant in or on the exterior of the Building which are not used by other tenants in the Building. Further, Tenant shall keep the Leased Premises safe for human occupancy and use. When used in this Section 7.03, "repairs" shall include all necessary replacements, renewals, alterations, additions and betterments. All repairs made by Tenant shall be at least equal in quality and cost to the original work and shall be made by Tenant in accordance with all laws, ordinances and regulations, whether heretofore or hereafter enacted. The necessity for or adequacy of maintenance and repairs shall be measured by the standards which are appropriate for improvements of similar construction and class, provided that Tenant shall in any event make all repairs necessary to avoid any structural damage or other damage or injury to the Leased Premises.

(b) Notwithstanding the above provisions to the contrary, except where the need for the HVAC Capital Repair (as defined below) is caused by Tenant's or its agents', employees' or invitees' negligent or willful acts or Tenant's failure to keep the required HVAC maintenance contract continuously in effect, Tenant's repair obligations under this Lease with respect to the HVAC system serving the Premises as of the Execution Date shall be limited to ordinary and reasonable maintenance of, and shall not include any capital repair/replacements (the "HVAC Capital Repair"), to, that system. Landlord, after notice of a need for an HVAC Capita] Repair is received from Tenant, shall, at its own expense, promptly- and diligently cause the HVAC Capital Repair to be made. Tenant shall nevertheless reimburse Landlord, within fifteen (15) business days, for Tenant's Allocable Share (as defined below) of all reasonably necessary costs incurred by Landlord in completing the HVAC Capital Repair (the "HVAC Capital Repair Costs"). "Tenant's Allocable Share" shall equal the HVAC Capital Repair Costs times a fraction, the numerator of which is the number of months remaining in the current Term of the Lease as of the date of the substantial completion of the HVAC Capital Repair (as certified by the subcontractor making the repair/replacement) and the denominator of which is eighty-four (84). In the event Tenant properly exercises its Renewal Option, Tenant's Allocable Share shall be recalculated by adding the total number of months in the Renewal Term to the numerator and denominator described above. The difference between the original calculation and this recalculation shall be paid by Tenant to Landlord prior to the commencement of the Renewal Term. For purposes of this subsection, a repair/replacement will be deemed "capital" in nature if the reasonable cost of that repair/replacement exceeds fifty percent (50%) of the replacement costs for the FTVAC System. The parties acknowledge that the provisions of this Section shall not apply to that portion of the Premises' HVAC system installed as part of the Upfit, the repair of which, whether capital or not, shall remain Tenant's responsibility as provided in Section 7.03(a) above.

7.04 Maintenance/Service Contract

Tenant, at its own cost and expense, covenants and agrees to enter into regularly scheduled preventative maintenance/service contracts with maintenance contractors for servicing any heating, ventilating, and air conditioning systems and other equipment which would benefit therefrom which are within or are serving the Leased Premises. Each maintenance contractor and contract must be approved in advance by Landlord, in its reasonable discretion. The service contract must include all services suggested by the equipment manufacturer within the operation/maintenance manual (a copy of such operation/maintenance manual shall be delivered to Tenant on or before the Commencement Date) and must become effective (and a copy thereof delivered to

Landlord) within thirty (30) days of the date Tenant takes possession of the Leased Premises. Tenant's duty to maintain its heating, ventilating and air conditioning systems shall specifically include the duty to inspect such systems, to replace filters as recommended and to perform other recommended periodic servicing.

7.05 Tenant's Waiver of Claims Against Landlord.

Except as otherwise set forth herein. Landlord shall not be required to furnish any services or facilities or to make any repairs or alterations in, about or to the Leased Premises or any improvements hereafter erected thereon. Tenant hereby assumes the full and sole responsibility for the condition, operation, repair, replacement, maintenance and management of the Leased Premises and all improvements hereafter erected thereon, and Tenant hereby waives any rights created by any law now or hereafter in force to make repairs to the Leased Premises or improvements hereafter erected thereon at Landlord's expense, except as otherwise set forth herein.

7.06 Landlord's Right to Effect Repairs.

If Tenant should fail to perform any of its obligations under this Article 7, then Landlord may, if it so elects, in addition to any other remedies provided herein, effect such repairs and maintenance. Any sums expended by Landlord in effecting such repairs and maintenance shall be due and payable, immediately upon receipt of Landlord's invoice therefor, together with an additional charge of fifteen percent (15%).

ARTICLE 8 - CONDEMNATION, CASUALTY, INSURANCE AND INDEMNITY

8.01 Condemnation.

If all or substantially all of the Leased Premises is taken by virtue of eminent domain or for any public or quasi-public use or purpose, this Lease shall terminate on the date the condemning authority takes possession. If only a part of the Leased Premises is so taken, or if a portion of the Building not including the Leased Premises is taken, this Lease shall, at the election of Landlord, either (i) terminate on the date the condemning authority takes possession by giving notice thereof to Tenant within thirty (30) calendar days after the date of such taking of possession or (ii) continue in full force and effect as to that part of the Leased Premises not so taken, in which case Rent shall be reduced on a square footage basis by the amount of square footage of the Leased Premises taken or condemned. All proceeds payable from any taking or condemnation of all or any portion of the Leased Premises and the Building shall belong to and be paid to Landlord, and Tenant hereby expressly assigns to Landlord any and all right, title and interest of Tenant now or hereafter arising in and to any such awards. Tenant shall have no, and waives any, claim against Landlord and the condemner for the value of any unexpired term. Tenant shall have the right to pursue a condemnation award from the condemning party, but only to the extent that an award to Tenant (i) is separately stated, and (ii) does not diminish any award to Landlord.

8.02 Damages from Certain Causes.

Neither Landlord nor Tenant shall be liable or responsible to the other party for any injury, loss, damage or inconvenience to any person, property or business occasioned by theft, fire, act of God, public enemy, injunction, riot, strike, insurrection, war, court order, requisition order of governmental body or authority, or any other cause beyond such other party's control.

8.03 Fire or Other Casualty.

(a) In the event of a fire or other casualty in the Leased Premises, Tenant shall immediately give written notice thereof to Landlord.

(b) If the Leased Premises or any portion of the Building and/or Project is damaged by fire or other casualty, Landlord shall have the right, but not the duty, to terminate this Lease or to repair the Leased Premises with reasonable dispatch, subject to delays resulting from adjustment of the loss and any other cause beyond Landlord's reasonable control.

(c) Landlord shall provide written notice to Tenant within thirty (30) calendar days after the date of any casualty as to Landlord's election to terminate or repair. The notice shall provide Landlord's reasonable estimate as to whether the repair and restoration can be completed within one hundred eighty (180) calendar days after the date of such notice. In the event Landlord's notice provides that repair or restoration will take more than one hundred eighty (180) calendar days after the date of such notice. Tenant shall have the right to terminate this Lease, provided that Tenant must deliver written notice of its election to terminate within ten (10) calendar days

after receipt of Landlord's notice thereof. If Tenant fails to deliver such notice in the time period specified above, Tenant shall be deemed to have waived its right to terminate.

(d) Subject to Force Majeure (defined in Section 11.08) in the event Landlord has not completed the repair(s) or restoration of the Leased Premises within eight (8) months after the date of Landlord's notice to Tenant as set forth in Section 8.03(c), Landlord shall provide written notice of such delay, and Tenant shall then have the right to terminate this Lease, provided that (i) Tenant must deliver written notice of its election to terminate within five (5) calendar days after receipt of Landlord's notice thereof and (ii) Landlord shall not have completed the repairs) or restoration of the Leased Premises within such five (5) calendar day period. If Tenant fails to deliver such notice in the time period specified above, Tenant shall be deemed to have waived its right to terminate.

(e) Anything in this Lease to the contrary notwithstanding, Landlord shall not be required, but rather it shall be Tenant's duty, to repair or replace any of the following: (i) furniture, furnishings or other personal property which Tenant may be entitled to remove from the Leased Premises and (ii) any installations in excess of those improvements made to the Leased Premises by Landlord or at Landlord's expense. Until Landlord's repairs are completed, the Rent shall be abated in proportion to the portions of the Leased Premises, if any, which are untenantable commencing on the date of the casualty. Notwithstanding anything contained in this Section. Landlord shall only be obligated to restore or rebuild the Leased Premises to improvements made to the Leased Premises by Landlord or at Landlord's expense, and Landlord shall not be required to expend more funds than the amount received by Landlord from the proceeds of any insurance carried by Landlord. Notwithstanding the preceding, Landlord shall have no duty to restore, repair, replace or rebuild the Leased Premises in the event that any mortgagee of Landlord should require that insurance proceeds received as a result of such fire or other casualty be applied to payment of the mortgage debt, and, in such event. Landlord shall have the right to terminate this Lease immediately.

8.04 Insurance Policies.

(a) Landlord shall maintain (i) policies of insurance covering damage to the Leased Premises and all Building- standard tenant improvements provided by Landlord or at Landlord's expense in the amount of not less than one hundred percent (100%) of the replacement value thereof providing protection against all perils included within the classification of fire and extended coverage, including endorsements for vandalism, malicious mischief, and fire sprinkler leakage; (ii) a policy or policies of commercial general liability insurance, such insurance to afford minimum protection (which may be effected by primary or excess coverage) of not less than $2,000,000.00 for personal injury or death in any one occurrence and of not less than $1,000,000.00 for property damage in any one occurrence; and (iii) a policy or policies of loss-of-rent/business interruption insurance covering the full amount of Rent due under this Lease for a period of twelve (12) months from the date of the interruption. Tenant shall reimburse Landlord for Tenant's pro rata share of the cost of the premiums for all such insurance policies, which premiums shall be payable upon demand as Additional Rent hereunder.

(b) Tenant shall, at its expense, maintain in full force and effect during the Term (i) standard fire and extended coverage insurance on all of its personal property, including removable trade fixtures, located in the Leased Premises and on its non-Building standard leasehold improvements and all other additions and improvements (including fixtures) made by Tenant; (ii) a policy or policies of commercial general liability insurance, such policy or policies to afford, through primary and/or excess coverage, minimum protection of not less than Two Million Dollars ($2,000,000,00) for bodily injury and/or property damage, including personal injury, in any one occurrence; and (iii) a policy or policies, if available, insuring against injury or damage from exposure to or interference from electromagnetic rays and/or fields.

(c) All insurance policies required to be maintained by Tenant shall (i) be issued by and binding upon solvent insurance companies licensed to conduct business in the State of North Carolina, and which are rated A-:VII1 or better by Best's Key Rating Guide, (ii) have all premiums fully paid on or before the due dates, (iii) name Landlord and such other persons or entities as Landlord may from time to time designate as additional insureds without restriction, (iv) provide that they shall not be cancelable and/or the coverage thereunder shall not be reduced without at least ten (10) calendar days advance written notice to Landlord, (v) contain a provision whereby the insurer waives all rights of subrogation against Landlord, and Landlord's officers, partners, managers, members,

directors, employees, agents and assigns, and (vi) state that coverage provided by Tenant shall be primary to any other insurance that Landlord may carry.

(d) Tenant shall deliver to Landlord certified copies of all policies or, at Landlord's option, certificates of insurance in a form satisfactory to Landlord not less than fifteen (15) calendar days prior to the Commencement Date and, also, the expiration of the then-current policies.

(e) One (1) time per calendar year of the Term, if, in the written opinion of Landlord's insurance advisor, the amount or scope of such coverage is deemed inadequate during the Term, Tenant shall increase such coverage to such amounts or scope as Landlord's insurance advisor deems adequate.

8.05 Waiver of Subrogation Rights.

(a) Anything in this Lease to the contrary notwithstanding, Landlord and Tenant each hereby (i) waives any and all rights of recovery, claims, actions or causes of action, including defense costs, against the other, its agents, members, managers, partners, shareholders, officers and employees, for any loss or damage that may occur to the Leased Premises or the Building, or any improvements thereto, or any personal property of such party therein, by reason of fire, the elements, and any other cause which is insured against under the terms of the standard fire and extended coverage insurance policies referred to in Section 8.04 hereof, only to the extent of recovery for same under said insurance policies since this waiver is not intended to nor shall it release a party from its indemnification obligations as set forth in this Article 8, and regardless of cause or origin, including but not limited to the sole or contributory negligence of the other party hereto, its agents, members, managers, officers, partners, shareholders or employees, and (ii) covenants that no insurer shall hold any right of subrogation against such other party.

(b) If the respective insurers of Landlord and Tenant do not permit such a waiver without an appropriate endorsement to such party's insurance policy, Landlord and Tenant shall notify the insurers of the waiver set forth herein and shall secure from each such insurer an appropriate endorsement to its respective insurance policy concerning such waiver, and if insurance policies with waiver of subrogation provisions are obtainable only at a premium, the party seeking the policy shall pay that additional premium.

(c) This provision shall survive the expiration or other termination of this Lease.

8.06 Indemnity/Waiver of Liability.

(a) Landlord shall not be liable to Tenant or Tenant's partners, managers, members, officers, directors, employees, shareholders, agents, contractors, customers or any person entering the Leased Premises, Building or Project under the express or implied invitation of Tenant, for any damage or injury to person or property arising out of any act, omission or neglect of Tenant, its partners, managers, members, officers, directors, employees, shareholders, agents, contractors, customers or any other person entering the Leased Premises, Building or Project under the express or implied invitation of Tenant, including, but not limited to, any claims which may be made for compensation or damages based upon exposure to or interference from electromagnetic rays and/or fields, and, subject to the mutual waivers of subrogation set forth in this Lease, Tenant agrees to indemnify and hold harmless Landlord and its successors and assigns and their respective partners, managers, members, agents, officers, directors, and employees from and against all claims, damages, losses, liabilities, lawsuits, costs and expenses for any such damage or injury, including, without limitation, court costs, and actual, reasonable attorneys' fees and costs of investigation.

(b) Subject to the insurance requirements and mutual waivers of subrogation rights set forth in this Lease, Landlord shall indemnify and hold Tenant harmless from and against any and all claims, damages, losses, liabilities, lawsuits, costs and expenses (including, without limitation, court costs, and actual, reasonable attorneys' fees and costs of investigation) arising out of any act, omission or neglect of Landlord, or any officer, employee, or contractor of Landlord. Tenant's failure to obtain any insurance coverage required under the terms of this Lease shall void Landlord's indemnity obligation to the extent such insurance would have provided coverage for the claim.

(c) This indemnification and hold harmless obligation is expressly conditioned on the following: (i) that the indemnifying party shall be notified by the party requesting indemnification in writing

promptly of any such claim or demand and whether said claim or demand is made by a third party; (ii) that the indemnifying party shall have sole control of the defense of any action or settlement or compromise; and (iii) that Landlord and Tenant shall cooperate with each other in a reasonable way to facilitate the settlement or defense of such claim or demand.

(d) Landlord's and Tenant's respective rights and obligations under this Section 8.06 shall survive the expiration or other termination of this Lease.

8.07 Limitation of Landlord's Personal Liability.

Tenant shall look solely to Landlord's interest in the Building and the Land for the recovery of any judgment against Landlord, and Landlord, its partners, managers, members, officers, directors, employees, shareholders and agents shall never be personally liable for any such judgment. The provisions contained in the foregoing sentence are not intended to, and shall not, limit any right that Tenant might otherwise have to obtain injunctive relief against Landlord or Landlord's successors in interest or any suit or action in connection with enforcement or collection of amounts which may become owing or payable under or on account of liability insurance maintained by Landlord.

8.08 Survival of Article 8.

The rights and obligations contained in this Article 8 shall survive the expiration or other termination of this Lease.

ARTICLE 9 - LANDLORD'S LIEN, DEFAULT, REMEDIES AND SUBORDINATION

9.01 Lien for Rent.

Intentionally deleted.

9.02 Default by Tenant.

(a) Any failure by Tenant to fully and completely perform or comply with any covenant, condition, term or provision on the part of Tenant to be performed or complied with under any Article of, and/or Exhibit to, this Lease shall constitute a breach of this Lease.

(b) Landlord shall have the right to treat the occurrence of any one or more of the following events as a default under this Lease (provided, no such levy, execution, legal process or petition as set forth in Subsections (3) through (7) below filed against Tenant shall constitute a default under this Lease if Tenant shall vigorously contest the same by appropriate proceedings, and shall remove or vacate the same within thirty (30) calendar days from the date of its creation, service or filing):

(1) Tenant does not pay Rent or any other sum to be paid by Tenant under this Lease when due; provided, however, that Tenant shall be allowed one (1) late payment of Rent in each calendar year of the Term, which late payment shall not be deemed a default hereunder so long as such Rent is paid within five (5) calendar days of the due date; or

(2) Tenant does not perform or comply with any covenant, condition, term or provision on the part of Tenant to be performed or complied with under any Article of, and/or Exhibit to, this Lease, and (i) such non-performance or non-compliance continues for thirty (30) calendar days after written notice to Tenant or such longer period of

time not to exceed forty-five (45) calendar days, provided (A) Tenant is exercising due diligence to effect such cure, (B) Tenant cannot reasonably cure such default within thirty (30) calendar days, (C) such default does not impact any other tenant(s) in the Building and (D) such default does not cause any additional liability to Landlord, or (ii) such non-performance or non-compliance is the same as or substantially similar to that of which Tenant has previously received written notice of non-performance or non-compliance from Landlord; or

(3) the interest of Tenant under this Lease is levied on under execution or other legal process; or

(4) any petition is filed by or against Tenant to declare Tenant a bankrupt or to delay, reduce or modify Tenant's debts or obligations; or

(5) any petition is filed to reorganize or modify Tenant's debts or obligations; or

(6) any petition is filed to reorganize or modify Tenant's capital structure; or

(7) Tenant is declared insolvent according to law; or

(8) any assignment of Tenant's property is made for the benefit of creditors; or

(9) a receiver or trustee is appointed for Tenant or its property; or

(10) Tenant vacates or abandons the Leased Premises or any part thereof at any time during the Term, unless such abandonment or vacancy does not adversely affect the appearance of the Building, and the Leased Premises appears occupied (lights on throughout and area(s) visible from the lobby or any public/common areas of the Building, completely furnished with quality furniture, accessories, pictures, etc. to maintain a high quality public image); or

(11) Tenant is a corporation and Tenant ceases to exist as a corporation in good standing in the state of its incorporation; or

(12) Tenant is a partnership or other entity and Tenant is dissolved or otherwise liquidated.

(c) If Tenant has been in monetary default of this Lease as defined in Section 9.02, and as evidenced by receipt of written notice from Landlord of such monetary default, more than two (2) times during the Term, and Tenant has been in non-monetary default under this Lease, as evidenced by receipt of written notice from Landlord of such non-monetary default, more than four (4) times during the Term, which event(s) of default are not cured within the applicable time period(s) set forth in this Section 9.02, then any option(s) which Tenant may have for the modification of the Term or for expansion of the Leased Premises shall automatically become null and void upon receipt of written notice from Landlord of a sixth (6th) default by Tenant, whether monetary or non-monetary.

(d) Tenant expressly acknowledges and agrees that this Lease, as well as any invoices and notices relating thereto, constitutes evidence of an indebtedness within the meaning of North Carolina General Statutes Section 6-21.2.

9.03 Landlord's Remedies.

Upon the occurrence of any default by Tenant under Section 9.02, Landlord shall have the right to do and perform any one or more of the following, in addition to, and not in limitation of, any other right or remedy permitted Landlord under this Lease or at law or in equity:

(a) Continue this Lease in full force and effect through the stated Term of this Lease, and this Lease shall continue in full force and effect as long as Landlord does not terminate this Lease, and Landlord shall have the right to collect Rent, Additional Rent and other charges when due;

(b) Terminate this Lease and repossess the Leased Premises as authorized hereby or terminate Tenant's right to possession without terminating this Lease and, under either circumstance, be entitled to recover as damages a sum of money equal to the total of the following:

(1) the cost of recovering the Leased Premises (including, but not limited to, actual, reasonable attorneys' fees and costs of suit); and

(2) the unpaid Rent and any other sums accrued hereunder as of the date of Lease termination; and

(3) the then present value (discounted at a rate equal to the then issued treasury bill having a maturity approximately equal to the remaining Term of this Lease had such default not occurred) of (i) the total Rent which would have been payable hereunder by Tenant for the period beginning with the day following the date of such termination and ending with the Expiration Date of the Term as originally scheduled hereunder, minus (ii) the aggregate rental value of the Leased Premises for the same period as estimated by a real estate broker selected by Landlord who is licensed in North Carolina, who has at least ten (10) years' experience immediately prior to the date in question in evaluating commercial

office space, taking into account all relevant factors including, without limitation, the length of the remaining Term, the then current market conditions in the general area, the likelihood of relating for a period equal to the remainder of the Term, net effective rates then being obtained by landlords for similar type space in similar buildings in the general area, vacancy levels in the general area, current levels of new construction in the general area and how that would affect vacancy and rental rates during the period equal to the remainder of the Term and inflation; and

(4) the reasonable costs and expenses of removing and storing any of Tenant's or any other occupant's property left in the Leased Premises, Building or Project after the date of Lease termination or after the date of termination of possession; and

(5) the reasonable costs and expenses of refurbishing the Leased Premises to the condition necessary to attempt to re-lease the Leased Premises at the prevailing market rental rate, normal wear and tear excepted; and

(6) any brokerage fees or commissions payable by Landlord in connection with any re-leasing or attempted re-leasing; and

(7) all administrative costs and expenses in connection with any re-leasing or attempted re-leasing; and

(8) any increase in insurance premiums caused by the vacancy of the Leased Premises; and

(9) the amount of any unamortized leasing commissions, any Upfit expenses, any Upfit allowance or any other allowances, and concessions previously made by Landlord to Tenant; and,

(10) any other sum of money, and damages owed by Tenant to Landlord, plus interest on (1) through (7) above at the rate of the lesser of eighteen percent (18%) per annum or the highest rate allowed by applicable law.

(c) File suit to recover any sums falling due under the terms of this Section 9.03, from time to time within the applicable statutes of limitation, and no delivery to or recovery by Landlord of any portion due Landlord shall be any defense in any action to recover any amount not theretofore reduced to judgment in favor of Landlord;

(d) Enter upon the Leased Premises.as authorized hereby and do whatever Tenant is obligated to do under the terms of this Lease, and Tenant shall reimburse Landlord on demand for any reasonable expenses which Landlord may incur in effecting compliance with Tenant's obligations under this Lease plus fifteen percent (15%) of such cost to cover overhead, and Tenant expressly agrees that Landlord shall not be guilty of trespass or liable for any damages resulting to Tenant from such action. No action taken by Landlord under this Section 9.03 shall relieve Tenant from any of its obligations under this Lease or from any consequences or liabilities arising from the failure to perform such obligations;

(e) Without waiving such default, apply all or any part of any Security;

(f) Change all door locks and other security devices of Tenant at the Leased Premises, the Building and/or the Project, and Landlord shall not be required to provide the new key or security device to Tenant except during Tenant's regular business hours, and only upon the condition that Tenant has cured any and all defaults hereunder, and in the case where Tenant owes Rent to Landlord, reimbursed Landlord for all Rent and other sums due Landlord hereunder. Landlord, on terms and conditions satisfactory to Landlord in its sole, reasonable discretion, may upon request from Tenant's employees, enter the Leased Premises for the purpose of retrieving therefrom personal property of such employees; however, Landlord shall have no obligation to do so; and

(g) Request Tenant's written acknowledgement (to be provided to Landlord within ten (10) business days of Landlord's request) that Tenant, through its default, has released possession of the Leased Premises and that Landlord has the right to lease the Leased Premises to a third party.

9.04 Mitigation of Damages.

(a) Landlord shall use commercially reasonable efforts to re-lease the Leased Premises and otherwise mitigate Landlord's damages under this Lease. Landlord shall be deemed to have used objectively reasonable efforts to fill the Leased Premises by advising Landlord's leasing agent of the availability of the Leased Premises and advising at least one (1) outside commercial brokerage entity of the availability of the Leased Premises; provided, however, that Landlord shall not be obligated to re-lease the Leased Premises before leasing any other unoccupied portions of the Building, Project and any other property under the ownership or control of Landlord.

(b) Tenant hereby expressly agrees that Tenant's failure to provide the acknowledgement described in Section 9.03(e) will impair Landlord's ability to mitigate its damages by re-leasing the Leased Premises.

(c) If Landlord receives any payments from the re-leasing of the Leased Premises, any such payments shall reduce the damages to Landlord as provided in Subsection 9.03(b) and elsewhere in this Lease.

9.05 Rights of Landlord in Bankruptcy.

Nothing in this Lease shall limit or prejudice the right of Landlord to prove for and obtain in proceedings for bankruptcy or insolvency, by reason of the expiration or termination of this Lease, an amount equal to the maximum allowed by any statute or rule of law in effect at the time when, and governing the proceedings in which, the damages are to be proved, whether or not the amount be greater, equal to, or less than the amount of the loss or damages referred to in this Article 9. In the event that under applicable law, the trustee in bankruptcy or Tenant has the right to affirm this Lease and continue to perform the obligations of Tenant hereunder, such trustee or Tenant shall, in such time period as may be permitted by the bankruptcy court having jurisdiction, cure all defaults of Tenant outstanding as of the date this Lease is so affirmed and provide to Landlord such adequate assurances as may be necessary to ensure Landlord of the continued performance of Tenant's obligations under this Lease.

9.06 Default by Landlord.

Except as otherwise set forth herein, in the event Landlord, due to its willful misconduct or gross negligence, fails to perform or observe any of its obligations under this Lease, provided any such failure is not a result of any act of God, force majeure or act or omission of Tenant, and any such failure continues for fifteen (15) calendar days after written notice from Tenant, which notice shall specify the nature and extent of the default, and Landlord is not proceeding to cure said default, and has not disputed Tenant's claim of Landlord's default, Tenant's sole remedies shall be the legal remedy of actual damages or the equitable remedy of specific performance. Landlord shall have such additional time as is reasonably necessary to cure the default so long as Landlord commenced the cure of such default within said fifteen (15) day period and is diligently proceeding to cure the same. In such event. Tenant shall have no right to sue for damages or specific performance, until such additional period of time shall have expired, so long as Landlord shall be diligently pursuing the cure of such default.

9.07 Non-Waiver.

Failure of Landlord to declare any default immediately upon occurrence thereof, or delay in taking any action in connection therewith, shall not waive such default and Landlord shall have the right to declare any such default at any time and take such action as might be lawful or authorized in this Lease or at law or in equity.

9.08 Attorney's Fees.

Upon the occurrence of any default by Tenant under Section 9.02, Landlord shall have the right to arrange for legal representation regarding the enforcement of all or any part of this Lease, the collection of any Rent or other sums due or to become due, or recovery of the possession of the Leased Premises, and Tenant shall reimburse Landlord for all actual, reasonable attorneys' fees, whether suit is actually filed or not, and any costs of investigation and court costs.

9.09 Subordination; Estoppel Certificate.

(a) This Lease is and shall be subject and subordinate to any and all ground or similar leases affecting the Building, and to all mortgages which may now or hereafter encumber or affect the Building and to all renewals, modifications, consolidations, replacements and extensions of any such leases and mortgages; provided that, at the option of any such landlord or mortgagee, this Lease shall be superior to the lease or mortgage of such landlord or mortgagee.

(b) The provisions of this Section shall be self-operative and shall require no further consent or agreement by Tenant. Tenant shall, however, execute and return any estoppel certificate (substantially in the form attached hereto as Exhibit E), subordination agreement, consent or other agreement reasonably requested by any such landlord or mortgagee, or by Landlord, within ten (10) calendar days after receipt of same; provided that Tenant receives a non-disturbance agreement from such mortgagee.

(c) With respect to any mortgage entered into by Landlord after the execution of this Lease, Landlord shall use commercially reasonable efforts to obtain a non-disturbance agreement from such mortgagee.

(d) In the event Tenant does not execute and return such documents in accordance with this Section 9.08, Tenant shall be deemed to have ratified such documents, and the information contained therein shall be deemed to be correct and binding upon Tenant.

(e) Tenant shall, at the request of Landlord or any mortgagee of Landlord secured by a lien on the Building or any landlord to Landlord under a ground lease of the Building, famish such mortgagee and/or landlord with written notice of any default by Landlord at least sixty (60) calendar days prior to the exercise by Tenant of any rights and/or remedies of Tenant hereunder arising out of such default.

(f) Notwithstanding the foregoing, Landlord agrees to use commercially reasonable efforts to obtain for Tenant a subordination, non-disturbance and attornment agreement ("SNDA") from its existing and any future lender on such lender's standard form. Landlord's failure or inability to obtain an SNDA as aforesaid shall not constitute a default under this Lease.

9.10 Attornment

If any ground or similar lease or mortgage is terminated or foreclosed, Tenant shall, upon request, attorney to the landlord under such lease or the mortgagee or purchaser at such foreclosure sale, as the case may be, and execute instrument(s) confirming such attornment. In the event of such a termination or foreclosure and upon Tenant's attornment as aforesaid, Tenant shall automatically become the tenant of the successor to Landlord's interest without change in the terms or provisions of this Lease; provided, such successor to Landlord's interest shall not be bound by (i) any payment of rent for more than one month in advance except prepayments of Security for the Lease, if any, or (ii) any amendments or modifications of this Lease made without the prior written consent of such landlord or mortgagee. Notwithstanding the foregoing, no mortgagee shall be bound by any amendments or modifications of this Lease made without such mortgagee's written consent while such mortgagee is holding a mortgage on the Building. Notwithstanding anything to the contrary contained in this Section, Tenant shall be obligated to attorney to a new landlord only if the holder of any recorded first mortgage or deed of trust lien grants Tenant a non-disturbance agreement providing that Tenant shall have the right to remain in possession of the Leased Premises in accordance with the terms of this Lease so long as Tenant is not in default hereunder.

9.11 Accord and Satisfaction.

No payment by Tenant or receipt by Landlord of an amount less than is due under this Lease shall be deemed to be other than payment towards or on account of the earliest portion of the amount then due, nor shall any endorsement or statement on any check or payment in any letter accompanying any check or payment be deemed an accord and satisfaction, and Landlord shall have the right to accept any such check or payment without prejudice to Landlord's right to recover the balance of such amount or to pursue any other remedy available to Landlord.

9.12 Survival of Article 9.

The rights and obligations contained in this Article 9 shall survive the expiration or other termination of this Lease.

ARTICLE 10 - ASSIGNMENT AND SUBLEASE

10.01 Assignment or Sublease.

(a) Tenant shall not, voluntarily, by operation of law, or otherwise, (i) assign, transfer, mortgage, pledge, or otherwise transfer or encumber (collectively, "assign") all or any part of Tenant's right and interest in this Lease or in the Leased Premises or, (ii) sublease the Leased Premises or any part thereof without the

prior written consent of Landlord, which such consent shall not be unreasonably withheld, and any attempt to do any of the foregoing without such written consent shall be null and void and shall constitute a default under this Lease. Relevant criteria in determining reasonability of consent will include, but will not be limited to, any adverse effect of a proposed assignment or assignee or sublease or subtenant on any other existing tenant in the Building, credit history or references from prior landlord(s) of proposed assignee or subtenant, and any material change or intensification (including occupancy or parking) of the use of the Leased Premises or the Building. Any one or more of the actions described in Subsection 10.01(a) shall be deemed a "Transfer".

(b) In no event shall Tenant assign this Lease or sublease the Leased Premises to (i) any other tenant in the Project, (ii) any entity engaged in the commercial real estate business, including, without limitation, property management or the brokerage, ownership or development of competitive properties, or (iii) which would cause Landlord to be in default of another lease in the Building or Project.

(c) Landlord's consent to any assignment or sublease hereunder does not constitute a waiver of its right to disapprove of any further assignment or sublease.

(d) If Tenant desires to assign this Lease or sublease the Leased Premises or any part thereof, Tenant shall give Landlord written notice of such desire at least thirty (30) calendar days in advance of the date on which Tenant desires to make such assignment or sublease, together with a non-refundable fee of Seven Hundred Fifty Dollars ($750.00) (the "Administration Fee"). The Administration Fee shall be waived for the first (1st) assignment or sublease, but shall be charged for each assignment or sublease thereafter. Landlord shall then have a period of fifteen (15) calendar days following receipt of such notice within which to notify Tenant in writing that Landlord elects (i) to terminate this Lease as to the space so affected as of the date so specified by Tenant, in which event Tenant shall be relieved of all further obligations hereunder as to such space, or (ii) to permit Tenant to assign this Lease or sublease such space, or (iii) to refuse to consent to Tenant's assignment or subleasing such space and to continue this Lease in full force and effect as to the entire Leased Premises. If Landlord should fail to notify Tenant in writing of such election within the fifteen (15) calendar day period, Landlord shall be deemed to have elected option (iii) above.

(e) If Landlord elects option (ii) above and approves the assignment or sublease, then (i) if the rent agreed upon between Tenant and subtenant is greater than the Monthly Base Rent that Tenant is obligated to pay to Landlord under this Lease, fifty percent (50%) of such excess rent (exclusive of Tenant's reasonable, documented costs of subleasing the Leased Premises, including, but not limited to, commissions, marketing costs and tenant improvements) shall be deemed Additional Rent owed by Tenant and payable to Landlord in the same manner that Tenant pays the Rent hereunder, and (ii) Tenant shall be solely responsible for all costs, including but not limited to, the cost of any work required due to any changes in the building, fire or other municipal, state, or federal codes (including the Americans with Disabilities Act) after the date of this Lease, together with all costs of providing any additional certificate of occupancy required for the subleased space or assigned premises.

(f) In addition to the Administration Fee, Tenant shall pay Landlord's actual reasonable attorneys' fees associated with any requested assignment or sublease hereunder regardless of whether Landlord consents to any such assignment or sublease.

(g) No assignment or subleasing by Tenant shall relieve Tenant of any obligations under this Lease, and Tenant shall remain fully liable hereunder.

(h) Any assignment or sublease agreement shall include the right by Landlord to relocate the assignee or subtenant to alternative space in the Building or Project, provided that the alternative space is comparable in size and quality and that such relocation is at Landlord's cost and expense.

(i) If Tenant is not a public company that is registered on a national stock exchange or that is required to register its stock with the Securities and Exchange Commission under Section 12(g) of the Securities and Exchange Act of 1934, any change in a majority of the voting rights or other controlling rights or interests of Tenant shall be deemed an assignment for the purposes hereof.

(j) Notwithstanding the foregoing, Tenant shall have the right, subject to the conditions contained in this Section 10.01, including obtaining Landlord's consent prior to such assignment or sublease, and also provided Tenant pays the Administration Fee (only if such assignment or sublease is not the first such assignment or sublease) and Landlord's actual reasonable attorneys' fees associated with Landlord's review and documentation of same promptly upon receipt of Landlord's invoice therefor, to assign this Lease or sublet all or any portion of the Leased Premises to (i) any entity resulting from a merger or consolidation with Tenant; (ii) any entity succeeding to the business and assets of Tenant; (iii) any subsidiary or affiliate of Tenant, (iv) any company that acquires all or substantially all of the assets or stock of Tenant; and (v) any entity which is part of or affiliated with Tenant (any of the foregoing shall be deemed an "Affiliate"), so long as such Affiliate shall be of at least the same net worth value and credit worthiness as Tenant, in Landlord's sole discretion, at the time of the transfer, and none of the same shall release Tenant, and Tenant shall remain liable to Landlord for full performance of Tenant's obligations under this Lease.

10.02 Assignment by Landlord.

Landlord shall have the right to transfer and assign, in whole or in part, all its rights and obligations hereunder and in the Building and all other property referred to herein, and in such event and upon such transfer (any such transferee to have the benefit of, and be subject to, the provisions of Section 6.07 and Section 8.07 hereof) no further liability or obligation shall thereafter accrue against Landlord under this Lease.

ARTICLE 11 - TENANT WARRANTIES; INCORPORATION OF EXHIBITS; COMMISSION(S), CONFIDENTIALITY. SURVIVAL, NOTICES, BINDING EFFECT AND MISCELLANEOUS

11.01 Tenant Warranties.

Tenant warrants that any and all consents and approvals required of third parties (including, without limitation, its Board of Directors or partners, where applicable) for the execution, delivery and performance of this Lease have been obtained, that Tenant has the right and authority to enter into and perform its covenants contained in this Lease, and that Tenant has the right and authority to conduct business in the State of North Carolina, and shall maintain all such right and authority during the Term. Tenant warrants further that neither Tenant, nor any shareholder, partner, member or affiliate of Tenant, has ever been the subject of a petition for relief under the United States Bankruptcy Code, whether voluntarily or involuntarily.

11.02 Incorporation of Exhibits.

The terms and provisions of Exhibits A-H described herein and attached hereto are hereby made a part hereof for all purposes; provided, however, that, unless otherwise expressly stated, in the event of a conflict between the terms of this Lease and the terms of any Exhibit attached hereto, the terms of this Lease shall control.

11.03 Commission(s).

Landlord shall pay to the Broker named in Subsection 2.01(l), a real estate brokerage commission only as set forth in a separate management, listing and/or commission agreement(s). Broker, and not Landlord, shall pay to the Co-Broker, if any, named in Subsection 2.01(l), a real estate brokerage commission by the Broker only as set forth in a separate co-brokerage commission agreement. Landlord and Tenant each hereby represent and warrant to the other that they have not employed or contracted with any agents, brokers or parties in connection with this Lease, other than those named in Subsection 2.01(j) and each agrees that it shall hold the other harmless from and against any and all claims of all other agents, brokers or other parties claiming by, through or under the respective indemnifying party. The rights and obligations contained in this Section shall survive the expiration or other termination of this Lease.

11.04 Confidentiality.

Tenant, its partners, members, managers, officers, employees and agents shall not disclose the terms and conditions of this Lease to any third party, except for purposes of accounting and legal review of Tenant's business, and Landlord may treat any such unauthorized disclosure as a default of this Lease, which may be subject to injunctive relief in addition to all other remedies available at law or in equity, including the remedy of specific performance and Landlord's right to recover damages. The rights and obligations contained in this Section shall survive the expiration or other termination of this Lease.

11.05 Survival.

Provisions intended by their terms or context to survive the expiration or any other termination of this Lease shall so survive with respect to events occurring during the Term of this Lease but shall expire pursuant to applicable statutes of limitation.

11.06 Notices.

Except as otherwise provided in this Lease, any statement, notice, or other communication which Landlord or Tenant may desire or is required to give to the other shall be in writing and shall be deemed sufficiently given or rendered (i) if hand delivered, as of the date of written acknowledgement of the delivery by any representative or agent of the party to whom the delivery is made, or (ii) if sent by registered or certified mail, postage prepaid, return receipt requested, or Federal Express or similar overnight courier as of the date noted on the written affirmation of delivery, to the addresses for Landlord and Tenant set forth in Subsection 2.01(k), or at such other address(es) as either party shall designate from time to time by ten (10) calendar days prior written notice to the other party. Tenant shall obtain written acknowledgement from Landlord recognizing any change in Tenant's address for the purposes of this Section, or such change shall not be effective as against Landlord.

11.07 Binding Effect

Upon execution by Tenant, this Lease and all of the covenants, conditions and agreements contained herein shall be binding upon, and inure to the benefit of, Tenant, its legal representatives and successors, and, to the extent assignment may be approved by Landlord hereunder, Tenant's assigns. Upon execution by Landlord, this Lease and all of the covenants, conditions and agreements contained herein shall be binding upon and inure to the benefit of Landlord, its legal representatives, successors and assigns.

11.08 Miscellaneous.

(a) No custom or practice which may evolve between the parties in the administration of the provisions of this Lease shall waive or diminish the right of Landlord to require performance by Tenant in complete accordance with the provisions of this Lease.

(b) Section headings are included for convenience only and are not to be used to construe or interpret this Lease. Pronouns of any gender shall include the other genders, and either the singular or the plural shall include the other.

(c) All rights and remedies of Landlord under this Lease shall be cumulative, and none shall exclude any other rights or remedies allowed by law. This Lease is declared to be a North Carolina contract, and all of the terms hereof shall be construed according to the laws of the State of North Carolina.

(d) This Lease is for the sole benefit of Landlord and Tenant, and no third party shall be deemed a third party beneficiary of this Lease without the express written consent of Landlord and Tenant.

(e) This Lease may not be altered, changed or amended, except by an instrument in writing executed by all parties hereto. Further, the terms and provisions of this Lease shall not be construed against or in favor of a party hereto merely because such party is the "Landlord" or the "Tenant" hereunder or such party or its counsel is the draftsman of this Lease.

(f) Whenever in this Lease there is imposed upon Landlord the obligation to use its best efforts, reasonable efforts or diligence, Landlord shall be required to do so only to the extent the same is economically feasible and otherwise will not impose upon Landlord extreme financial or other business burdens.

(g) If any term or provision of this Lease, or the application thereof to any person or circumstance, shall to any extent be invalid or unenforceable, the remainder of this Lease, or the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each provision of this Lease shall be valid and shall be enforceable to the extent permitted by law.

(h) Tenant is prohibited from recording this Lease or any memorandum thereof without the prior written consent of Landlord.

(i) "Square feet" or "square foot" as used in this Lease includes the area contained within the space occupied by Tenant, measured from the center-line of demising walls, together with a common area percentage factor of Tenant's space proportionate to the total Building areas. Common areas include the space from the "glass walls" to the "dripline" of the Building, and the sprinkler riser room, mechanical room and electrical room for the Building.

(j) "Business day(s)" as used in this Lease shall mean the days of the week which are Monday through Friday, except when any such day is also a holiday that is listed on the Building Rules.

(k) Tenant understands and agrees that the property manager for the Building is the agent of Landlord and is acting at all times in the best interest of Landlord. Any and all information pertaining to this Lease that is received by the property manager shall be treated as though received directly by Landlord.

(l) This Lease may be executed in any number of counterparts, each of which shall be an original, but all of which taken together shall constitute one and the same instrument.

(m) One (1) time during each calendar year of the Term and at any time Tenant is in monetary default of this Lease, Tenant shall provide Landlord, upon ten (10) calendar days' written notice, a true, accurate and complete copy of Tenant's financial statements, including income and expense statements and balance sheets, which shall reflect the most recent quarter and most recent year-end at the time of such review. Landlord shall keep all such financial information confidential and shall not disclose such information to third parties, unless legally compelled to do so.

(n) Landlord shall have the right to use Tenant's name in marketing literature and releases to news media.

(o) Neither Landlord nor Tenant shall be required to perform any term, provision, agreement, condition or covenant in this Lease (other than the obligations of Tenant to pay Rent as provided herein) so long as such performance is delayed or prevented by "Force Majeure", which shall mean acts of God, strikes, injunctions, lockouts, material or labor restrictions by any governmental authority, civil riots, floods, fire, theft, public enemy, insurrection, war, court order, requisition or order of governmental body or authority, and any other like cause not reasonably within the control of Landlord or Tenant and which by the exercise of due diligence Landlord or Tenant is unable, wholly or in part, to prevent or overcome. Neither Landlord nor any mortgagee shall be liable or responsible to Tenant for any loss or damage to any property or person occasioned by any Force Majeure, or for any damage or inconvenience which may arise through repair or alteration of any part of the Project as a result of any Force Majeure.

(The remainder of this page intentionally left blank.)

ARTICLE 12 - ENTIRE AGREEMENT AND LIMITATION OF WARRANTIES

12.01 ENTIRE AGREEMENT AND LIMITATION OF WARRANTIES.

TENANT AGREES THAT THIS LEASE AND THE EXHIBITS ATTACHED HERETO CONSTITUTE THE ENTIRE AGREEMENT OF THE PARTIES AND THAT ANY AND ALL PRIOR CORRESPONDENCE, MEMORANDA, AGREEMENTS AND UNDERSTANDINGS (WRITTEN AND ORAL) ARE SUPERSEDED BY THIS LEASE. TENANT FURTHER AGREES THAT THERE ARE NO, AND TENANT EXPRESSLY WAIVES ANY AND ALL, WARRANTIES WHICH EXTEND BEYOND THOSE EXPRESSLY SET FORTH IN THIS LEASE OR IMPLIED WARRANTIES OF MERCHANTABILITY, HABITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER KIND ARISING OUT OF THIS LEASE.

IN TESTIMONY WHEREOF, the parties hereto have caused this Lease to be executed by their respective duly authorized representatives, as of the date first aforesaid.

LANDLORD:

GRE Keystone Technology Park One LLC, a Delaware limited liability company

By: GRE Keystone Technology Park Holdings LLC, a Delaware limited liability company, its Sole Member

By: Capital Associates Management, LLC, a North Carolina limited liability company, acting as Investment Manager for GRE Keystone Technology Park Holdings LLC

By: /s/ Stephen P. Pairterfield
Stephen P. Pairterfield, Delegate
Manager

TENANT:

Liquidia Technologies, Inc., a Delaware corporation

By: /s/ Bruce Boucher
Bruce Boucher, President

Attest:

By: _____
Secretary

Exhibit A-1

Keystone Technology Park - Building IV
419 Davis Drive, Suite 600
Durham, North Carolina 27713

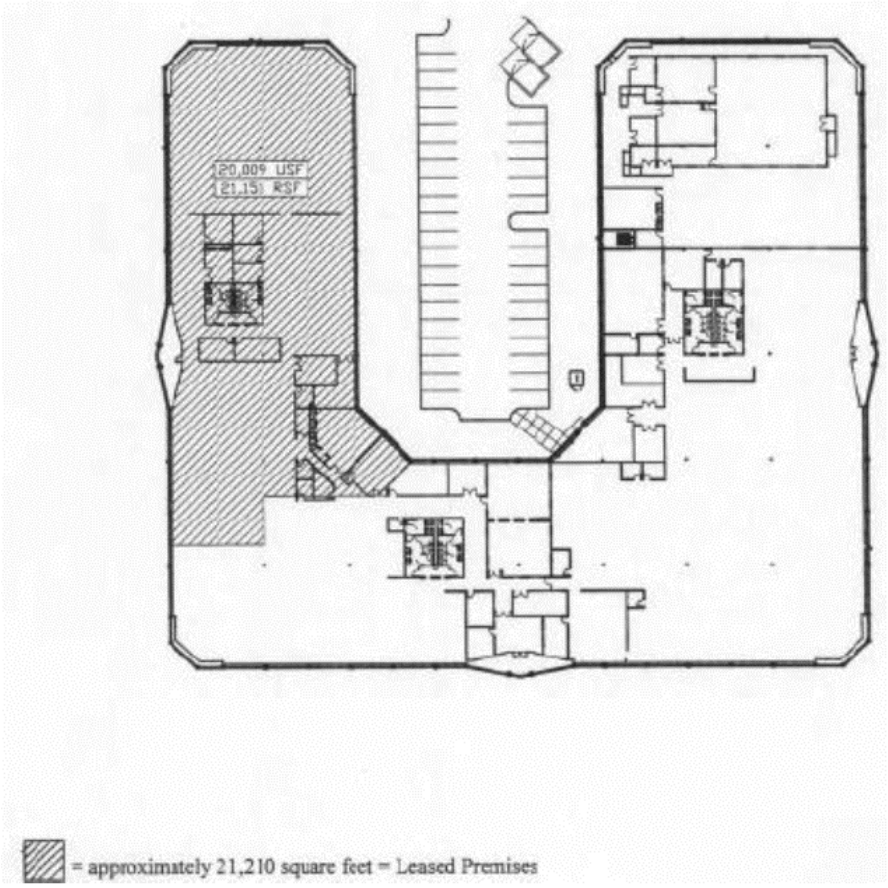

Exhibit A-1

THE LAND

Being all of that lot described as Tract I-D according to that plat entitled “Subdivision for Tract 1C & ID, Keystone Technology Park” recorded in Plat Book 139, Page 171, Durham County Registry, to which plat reference is made for greater certainty of description. Save and excepting that twenty (20) foot strip of land dedicated to the City of Durham by that plat recorded in Plat Book 144, Page 172, Durham County Registry.

Save and Except all of that property taken in the condemnation proceeding reported in the Memorandum of Action recorded in Book 4715, Page 266, Durham County Registry.

AS TO PARCELS 1, 2, 3 & 4: Together with appurtenant rights and easements under the Cross-Access Agreement recorded in Book 2731, Page 236, Durham County Registry.

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EXHIBIT A-3

THE PROJECT

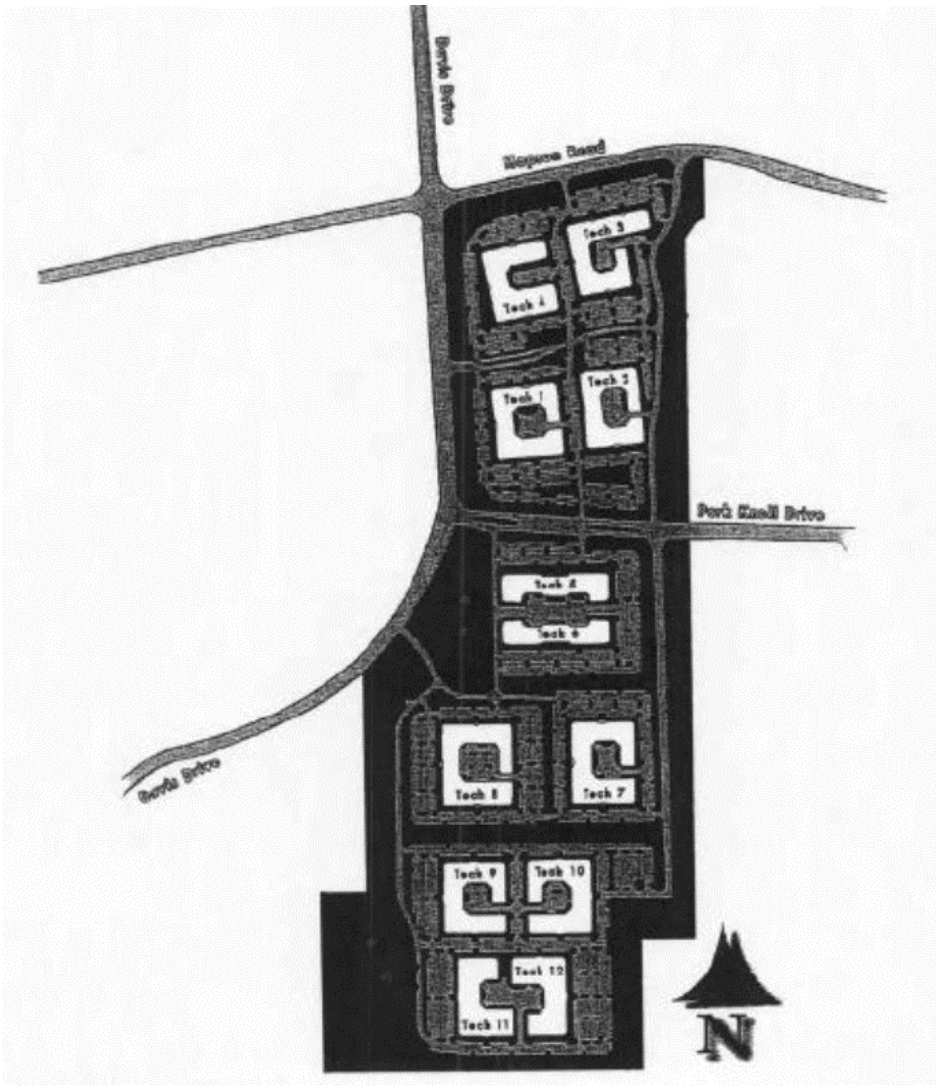

EXHIBIT B

ACCEPTANCE OF LEASED PREMISES MEMORANDUM

Pursuant to the Lease dated 2007, by and between GRE Keystone Technology Park One LLC, a Delaware limited liability company authorized to conduct business in the State of North Carolina ("Landlord"), and Liquidia Technologies, Inc., Delaware corporation authorized to conduct business in the State of North Carolina ("Tenant"), for the Leased Premises located in Suite 600, at Keystone Technology Park - Building IV, 419 Davis Drive, Durham, North Carolina 27713, with a Commencement Date of , 2007, Landlord and Tenant hereby agree that:

1. Except for those items shown on the attached "punch list", which Landlord shall use reasonable efforts to remedy within thirty (30) calendar days after the date hereof, Landlord has fully completed the construction work required of Landlord under the terms of the Lease and the work letter attached as Exhibit C thereto.

2. The Leased Premises are tenantable, Landlord has no further obligation for construction (except as specified above), and Tenant acknowledges that the Leased Premises are satisfactory in all respects, subject to Landlord's representation of the condition of the Leased Premises as set forth in this Lease.

All other terms and conditions of the Lease are hereby acknowledged to be unchanged.

Agreed and Executed this day of , 20 .

TENANT:

Liquidia Technologies, Inc., a Delaware corporation

By: _____

Attest:

Name: _____

By: _____ Title: _____

Secretary

EXHIBIT C

WORKLETTER AGREEMENT

1. Existing Condition and Unfit. The condition of the Leased Premises as of the date of this Lease, as is and with all faults, shall be deemed the "Existing Condition". All demolition of and improvements made to the Existing Condition of the Leased Premises in accordance with the Schematic Space Plan and Detailed Plans (both defined below) shall be deemed the "Upfit".

2. Allowances.

(a) Landlord shall provide Tenant with a tenant improvement allowance in an amount not to exceed the sum of (i) Four Hundred Twenty-four Thousand Two Hundred Dollars (S424.200.00) and (ii) Two Hundred Ninety-one Thousand Six Hundred Thirty-seven Dollars and Fifty Cents ($291,637.50) for a total amount of Seven Hundred Fifteen Thousand Eight Hundred Thirty-seven Dollars and Fifty Cents ($715,837.50) (the "Allowance"), to pay for all costs and expenses incurred by Landlord for the design and construction of the Upfit, including (A) any demolition related thereto, (B) any architectural work, and (C) any plumbing, mechanical and electrical work, as set forth below.

(b) In addition to the foregoing Allowance, in the event the cost of the Upfit exceeds the amount of the Allowance, and Tenant provides written notice to Landlord that Tenant so elects, then Landlord shall pay for an amount in excess of the Allowance, up to a maximum of Seven Hundred Sixty-eight Thousand Eight Hundred Sixty-two Dollars and Fifty Cents ($768,862.50) (the Amortized Allowance, defined in Section 4.091, as such shall be amortized and repaid to Landlord, pursuant to Section 4.09. Any amount in excess of the total of the Allowance and the Amortized Allowance shall be due and payable to Landlord in accordance with Section 4 herein.

3. Design. Landlord shall cause an architect and one or more engineers, each of whom shall be designated by Landlord in its sole discretion, to consult with Tenant and to prepare architectural, plumbing, mechanical and electrical plans that are (i) consistent with the "Schematic Space Plan" for the Leased Premises, which shall be completed on or before ten (10) calendar days after the Execution Date, and when executed by both parties, shall automatically become attached to this Lease as Exhibit C-l, (ii) sufficiently detailed for pricing, approval and construction of the Upfit, and (iii) subject to Landlord's approval, in its reasonable discretion (the "Detailed Plans"). All partitions, doors, hardware, ceiling tile, window coverings, plumbing, HVAC, lighting fixtures, switches, outlets and life safety items shall be designed in Landlord's standard manner. Carpet, paint, wall covering, and millwork shall be selected and designed in Landlord's standard manner and from Landlord's standard finishes, unless otherwise requested by Tenant, in accordance with Section 4 herein. Tenant shall famish to Landlord all other information and technical data reasonably necessary for the preparation of the Detailed Plans within five (5) business days of Landlord's request therefor, or as otherwise agreed to by Tenant and Landlord, so as not to delay the design, pricing, approval and construction of the Upfit by the Target Commencement Date.

4. Approval of Plans and Cost. Landlord shall cause a general contractor or contractors designated by Landlord, at its sole discretion, to prepare detailed pricing of construction of the Upfit pursuant to the Detailed Plans. Landlord shall submit to Tenant for Tenant's approval (i) the Detailed Plans and (ii) an itemized cost statement of all design and construction costs related to the Upfit (the "Cost Statement"). Such Cost Statement shall include, but not be limited to, all costs associated with any contractor's general conditions, permits (including any new or changes to development, facility or transportation impact fees), taxes, insurance and fees. Landlord shall not charge Tenant any commercially unreasonable overtime rates to ensure the completion of the office portion of the Upfit by the Target Commencement Date. Within five (5) business days after its receipt of the Detailed Plans and Cost Statement, Tenant shall approve the Detailed Plans and the Cost Statement in writing, subject to any modifications or changes in the Detailed Plans requested by Tenant. Landlord, in its sole discretion, shall retain final approval rights for the Detailed Plans. After Tenant's approval of the Detailed Plans and the Cost Statement or in the event Tenant does not respond to Landlord within such five (5) business day period, the Detailed Plans and the Cost Statement shall be deemed to be approved by Tenant, and such approved Detailed Plans shall be thereafter deemed the "Plans". Notwithstanding anything to the contrary contained herein, if the architectural and engineering

design, demolition (if applicable), and construction costs of the Upfit as approved by Tenant, exceed the Allowance and the Amortized Allowance, then Tenant shall be obligated to pay for all such excess costs. Landlord shall submit an invoice to Tenant for such excess costs at the time the Detailed Plans and Cost Statement are approved or deemed approved by Tenant, and Tenant shall pay such excess costs within fifteen (15) calendar days of receipt of Landlord's invoice therefor. Any subsequent changes or modifications to the Plans shall be made and accepted in writing by Landlord and Tenant and shall constitute an amendment to the Lease, and Tenant shall pay for any additional sums caused by such changes or modifications to the Plans immediately upon receipt of Landlord's invoice therefor. If the cost of designing and constructing the Upfit as approved by Tenant is less than the Allowance, Tenant shall not be entitled to any refund of the unused portion of the Allowance, but Tenant shall be allowed to apply any such unused portion of the Allowance to the Additional Upfit, as set forth in Section 4.09.

5. Construction. After Tenant (i) approves the Detailed Plans and the Cost Statement, (or if Tenant does not respond to Landlord regarding the Detailed Plans and the Cost Statement, as set forth in Section 4 herein), and (ii) pays any and all costs in excess of the Allowance as set forth in Section 4 herein, then Landlord shall be entitled to cause, and shall cause, the general contractor designated by Landlord to construct the Upfit in accordance with the Plans and the Cost Statement.

6. Delay. The Commencement Date, Expiration Date, and commencement of installments of Monthly Base Rent shall not be postponed or delayed as a result of any of the following:

(1) Tenant's failure to furnish information or consult with Landlord or Landlord's architects or engineers when requested in order to prepare the Detailed Plans (including, failure to complete the Schematic Space Plan within ten (10) business days of the Execution Date of this Lease);

(2) Any laboratory related material(s), equipment, or fixtures contained in the Upfit requiring more than eight (8) weeks to deliver to the Leased Premises for construction as part of the Upfit;

(3) Tenant's failure to approve the Cost Statement or to pay any excess cost as provided in Section 5 herein;

(4) Changes to the Plans requested or caused by Tenant after Tenant's approval of the Detailed Plans and Cost Statement; or,

(5) Any other delay from any other cause attributable to Tenant, its agents, consultants, contractors, subcontractors or employees.

7. Tenant's Access to Leased Premises. Landlord shall permit Tenant and its agents reasonable access to the Leased Premises during normal business hours thirty (30) calendar days prior to the Target Commencement Date for the purpose of installing telephone and computer cabling, equipment, fixtures and other personal property, and such entry and use of the Leased Premises shall not constitute acceptance of the Leased Premises nor Tenant's acknowledgment of the Commencement Date of the Lease, unless Tenant commences the operation of any portion of its business therein. This right of entry onto the Leased Premises is a license from Landlord to Tenant which is subject to revocation in the event that Tenant or its employees, contractors or agents causes or is the cause of any code or governmental violation, labor dispute, delay or damage during such period which results from, whether directly or indirectly, the installation or delivery of the foregoing, or otherwise becomes in default of any term, covenant or condition of this Lease as provided in . Prior to Tenant's entry onto the Leased Premises in accordance herewith. Tenant shall demonstrate to Landlord that it has obtained the insurance required and is in compliance with Section 8.04 of the Lease. Under no circumstances shall Landlord be liable or responsible for and Tenant agrees to assume all risk of loss or damage to such telephone and computer cabling, equipment, fixtures and other personal property and to indemnify, defend and hold Landlord harmless from any liability, loss or damage arising from any damage to the property of Landlord, or its contractors, employees or agents, and any death or personal injury to any person or persons to the extent caused by, attributable to or arising out of, whether directly or indirectly, Tenant's entry onto the Leased Premises or the delivery, placement, installation, or presence of the telephone and computer cabling, equipment, fixtures and other personal property, except to the extent that such loss or damage is caused solely by Landlord's willful misconduct or gross negligence or the willful misconduct or gross negligence of Landlord's contractors, agents or employees.

8. Warranties. Landlord shall cause the repair or replacement of any defects in material or workmanship in the Upfit installed by Landlord for a period of one (1) year after the date of substantial completion of the Leased Premises, or the duration of any manufacturer's warranty, whichever is longer, provided Tenant notifies Landlord of such defect as soon as reasonably practicable after the date Tenant discovers such defect. LANDLORD MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH THE UPFIT EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 8. Tenant's sole remedy for the breach of any applicable warranty shall be the remedy set forth in this Section 8. Tenant agrees that no other remedy, including without limitation, incidental or consequential damages for lost profits, injury to person or property or any other incidental or consequential loss, shall be available to Tenant.

9. Compliance with Certain Requirements. At any time before, during, and after construction, Landlord shall have the right to require changes to the Plans and construction in order to comply with applicable building codes, other governmental requirements, and insurance requirements. Neither Landlord's nor Tenant's approval of the Plans is a warranty that the Plans comply with applicable building codes, other governmental requirements, and insurance requirements.

10. No Liability. Notwithstanding the review and approval by Landlord of the Detailed Plans and any changes to same, Landlord shall have no responsibility or liability, including the costs of additional or corrective work, in regard to the safety, sufficiency, adequacy or legality thereof, and Tenant shall look solely to the party(ies) preparing same as the party(ies) responsible for ensuring that such Detailed Plans and changes thereto (and the architectural and engineering completeness and sufficiency thereof and the Upfit constructed as a result thereof) are in compliance with all applicable laws and regulations, and Tenant's stated intended use.

(The remainder of this page intentionally left blank.)

EXHIBIT C-1

SCHEMATIC SPACE PLAN

Keystone Technology Park - Building IV
419 Davis Drive, Suite 600
Durham, North Carolina 27713

The Schematic Space Plan shall be completed on or before ten (10) calendar days after the Execution Date, and when executed by both parties, shall automatically become attached to this Lease as Exhibit C-l. Landlord and Tenant shall use reasonable good- faith efforts to complete the Schematic Space Plan within such ten (10) calendar day period and any failure to complete the Schematic Space Plan within such ten (10) business day period shall be a Tenant Delay.

EXHIBIT D

BUILDING RULES

1. The sidewalks, walks, plaza entries, corridors, concourses, ramps, staircases, escalators and elevators shall not be obstructed or used by Tenant, or any person entering the Building under express or implied invitation of Tenant, for any purpose other than ingress and egress to and from the Leased Premises. No bicycle, motorcycle or other vehicle (except for a forklift) shall be brought into the Building or kept on the Leased Premises without the prior written consent of Landlord, which consent shall not be unreasonably withheld.

(2) No freight, furniture or bulky matter of any description shall be received into the Building except in such a manner, during such hours and using such passageways as may be approved by Landlord. Any hand trucks, carryalls or similar appliances used for the delivery or receipt of merchandise or equipment shall be equipped with rubber tires, side guards and such other safeguards as Landlord shall require.

(3) Landlord shall have the right to prescribe the weight, position and manner of installation of safes, concentrated filing/storage systems or other heavy equipment which shall, if considered necessary by Landlord, be installed in a manner, which may require reinforcement of the Building's structure (at Tenant's cost and expense) to insure satisfactory weight distribution. All damage done to the Building by reason of a safe or any other article of Tenant's equipment being on the Leased Premises shall be repaired at the expense of Tenant. The time, routing and manner of moving safes or other heavy equipment shall be subject to prior written approval by Landlord, which approval shall not be unreasonably withheld.

(4) Tenant shall use no other method of heating or cooling than that supplied by Landlord, except for the Back-up Generator operated by Tenant or any additional heating, ventilating and air conditioning equipment, which such equipment shall be (i) approved by Landlord prior to installation, with Landlord's approval not to be unreasonably withheld and (ii) installed and maintained by Tenant, at Tenant's sole cost and expense.

(5) Tenant shall not at any time, cause or allow the placement, leaving or discarding of any rubbish, paper, articles or objects of any kind whatsoever outside the doors of the Leased Premises or in the corridors or passageways of the Building.

(6) Landlord shall have the right to prohibit any advertising by Tenant which, in Landlord's opinion, tends to impair the reputation of the Building or its desirability to be leased by third parties, and. upon written notice from Landlord, Tenant shall refrain from or discontinue such advertising.

(7) Except as otherwise set forth in Tenant's Lease, Tenant shall not place, or cause or allow to be placed, any signage, lettering or graphics whatsoever, in or outside the Leased Premises except in and at such places as may be designated by Landlord and consented to by Landlord in writing, which consent shall not be unreasonably withheld, prior to the installation of such signage, lettering or graphics. All signage, lettering and graphics on exterior doors and walls shall conform to the Building standard prescribed by Landlord. Any signage, lettering or graphics located in the Leased Premises that is visible to the public must be approved, in writing, by Landlord prior to installation thereof, which approval shall not be unreasonably withheld.

(8) Canvassing, soliciting or peddling in the Building is prohibited and Tenant shall cooperate to prevent same.

(9) Landlord shall have the right to exclude any person from the Building other than during customary business hours, and any person in the Building shall be subject to identification by employees and agents of Landlord. All persons in or entering the Building shall be required to comply with the security policies of the Building. If Tenant desires any additional security services for the Leased Premises, Tenant shall have the right (only with the advance written consent of Landlord) to obtain such additional services at Tenant's sole cost and expense. Tenant shall keep doors to unattended areas locked and shall otherwise exercise reasonable precautions to protect property in the Building and the Leased Premises from theft, loss or damage.

(10) Only workers employed, designated or approved by Landlord may be employed for repairs, installations, alterations, painting, material moving and other similar work that may be done in or on the Leased Premises.

(11) Tenant shall not do or allow any cooking or conduct any restaurant, luncheonette, automat or cafeteria for the sale or service of food or beverages to its employees or to others, without the prior written consent of Landlord, which consent shall not be unreasonably withheld. Tenant may, however, provide, at Tenant's cost and expense, microwave oven(s), refrigerator(s) and coffee machine(s) in a designated break room/area(s) of the Leased Premises for use by Tenant's employees and invitees.

(12) Except as permitted by Section 6.03 of Tenant's Lease, Tenant shall not bring, or cause or allow to be brought or kept in or on the Leased Premises, the Building or the Project, any bleach, inflammable, combustible, corrosive, caustic, odorous, poisonous, toxic or explosive substance or any substance deemed to be a Hazardous or Toxic Material under any applicable Environmental Law or regulation.

(13) Tenant shall not mark, paint, drill into or in any way deface any part of the Building or the Leased Premises. No boring, driving of nails or screws, cutting or stringing of wires shall be permitted, except with the prior written consent of Landlord, and as Landlord may direct; provided, however, that Tenant shall be permitted to install or hang usual and customary office artwork and dry boards without Landlord's prior written consent. Tenant shall not install coat hooks, identification plates or anything else on doors nor any resilient tile or similar floor covering in the Leased Premises except with the prior written approval of Landlord which approval shall not be unreasonably withheld. The use of cement or other similar adhesive material is expressly prohibited.

(14) Tenant shall not place any additional locks or bolts of any kind on any door in the Building or the Leased Premises or change or alter any lock on any door therein in any respect. Landlord shall furnish two (2) keys for each lock on exterior doors to the Leased Premises, and two (2) keys (conventional or card type) for one (1) or more exterior doors to the Building, and shall, on Tenant's request and at Tenant's expense, provide additional duplicate keys. Tenant shall not make any duplicate keys. All keys shall be returned to Landlord upon the termination of the Lease, and Tenant shall give to Landlord the explanation of the combination of all safes, vaults and combination locks in the Leased Premises. Landlord may at all times keep a pass key to the Leased Premises. All entrance doors to the Leased Premises shall be left locked when the Leased Premises are not in use. Notwithstanding the foregoing, and provided that Tenant informs Landlord of any and all relevant access codes, Tenant shall, at its sole cost and expense (with the understanding that Tenant may use the Allowance), be permitted to install a security system at the Leased Premises, including, without limitation, an access card and lock system, provided Tenant requests and obtains Landlord's written approval (which approval shall not be unreasonably withheld) of the specific security system prior to the commencement of installation.

(15) Tenant shall give immediate notice to Landlord in case of theft, unauthorized solicitation or accident in the Leased Premises or in the Building or of defects therein or in any fixtures or equipment, or of any known emergency in the Building.

(16) Tenant shall place a water-proof tray under all plants in the Leased Premises and shall be responsible for any damage to the floors, carpets, and/or any other damage caused by over-watering such plants.

(17) Tenant shall not use the Leased Premises or allow the Leased Premises to be used for photographic, multibit, multigraph or digital reproductions, except in connection with its own business and not as a service for others, without Landlord's prior written permission.

(18) Tenant shall not use or permit any portion of the Leased Premises to be used for any uses other than those specifically granted in Tenant's Lease.

(19) Tenant shall not advertise for laborers (i.e. those who perform physical labor outdoors) giving the Leased Premises as an address, nor pay such laborers at a location in the Leased Premises.

(20) Employees of Landlord or Landlord's agent(s) shall not perform any work or do anything outside of their regular duties, unless under special instructions from Landlord or Landlord's agent(s).

(21) Without the prior approval of Landlord, in Landlord's sole discretion, Tenant shall not place a load upon any floor of the Leased Premises which exceeds the load per square foot which such floor was designed to carry and which is allowed by law, regulation or code. Business machines and mechanical and electrical equipment belonging to Tenant which cause noise, vibration, electrical or magnetic interference, or any other nuisance that may be transmitted to the structure or other portions of the Building or to the Leased Premises to such a degree as to be reasonably objectionable to Landlord or which interfere with the use or enjoyment by other tenants of their leased premises or the public portions of the Building, shall be placed and maintained by Tenant, at Tenant's expense, in settings of cork, rubber, spring type or other vibration eliminators sufficient to eliminate noise or vibration.

(22) Tenant shall famish and install a chair mat for each desk chair located on carpet in the Leased Premises.

(23) No solar screen materials, awnings, draperies, shutters or other interior or exterior window coverings that are visible from the exterior of the Building or from the exterior of the Leased Premises within the Building may be installed by Tenant. Building-standard mini blinds shall not be pulled up or removed, but may be opened using the "wand".

(24) Tenant shall not place, install or operate within the Leased Premises or any other part of the Building any engine or stove, without the prior written consent of Landlord, which consent shall not be unreasonably withheld.

(25) No portion of the Leased Premises or any other part of the Building shall at any time be used or occupied as sleeping or lodging quarters.

(26) For purposes of the Lease, holidays shall be deemed to mean and include the following: (a) New Year's Day; (b) Memorial Day; (c) Independence Day; (d) Labor Day; (e) Thanksgiving Day and the Friday following; and (f) Christmas Day. If any such holiday occurs on a weekend, then the holiday shall be the day such holiday is legally observed.

(27) Tenant shall at all times keep the Leased Premises neat and orderly.

(28) All permitted alterations and additions to the Leased Premises must conform to applicable building and fire codes. Tenant shall obtain prior approval from applicable building and fire officials and Landlord with respect to any such modifications and shall deliver "as-built" plans therefor to the property manager for the Building on completion.

(29) It is the intent of both Landlord and Tenant that any portion of the Leased Premises visible to the public hold a high quality professional image at all times. If, at any time during the Term, Landlord or Landlord's agent deems such visible area to hold less than a high quality professional image, Landlord shall advise Tenant of desired changes to be made to such area to conform to the intent of this paragraph. Within three (3) business days, Tenant shall cause the desired changes to be made, or present Landlord with a plan for accomplishing such changes. Tenant shall have such additional time as is reasonably required to implement the plan, not to exceed two (2) months; provided, however, that if Tenant is not diligently pursuing the plan for accomplishing such changes within ten (10) business days, or does not implement the plan within two (2) months, then Landlord may provide draperies or blinds for the glassed area at Tenant's expense, and Tenant shall keep such draperies or blinds closed at all times.

(30) The toilet rooms, urinals, wash bowls and other plumbing apparatus shall not be used for any purpose other than that for which they were constructed, and no foreign substance of any kind whatsoever shall be thrown therein. The expense of any breakage, stoppage or damage resulting from the violation of this rule shall be borne by the tenant who, or whose employees or agents, shall have caused it.

(31) The Building has been designated a "non-smoking" building. Tenant, and all persons entering the Building under the express or implied invitation of Tenant are prohibited from smoking in the common areas both inside and outside of the Building, except in those areas outside the Building designated as smoking areas by Landlord.

(32) No animals, except for "service animals" trained to assist disabled persons, shall be brought or kept in or about the Leased Premises or the Building without the prior written consent of Landlord.

(33) Tenant shall not play or allow the playing or the generation of (i) any music or loud noise in the common areas of the Building without Landlord's prior written consent and/or (ii), any loud music or loud noise in the Leased Premises, as determined by Landlord in Landlord's sole discretion.

(34) Tenant shall not cause or allow any odors deemed obnoxious or otherwise unreasonable by Landlord, in Landlord's sole discretion, to permeate or emanate from the Leased Premises.

(35) Tenant shall not bring, or cause or allow to be brought, any firearms, ammunition or weapons of any kind, whether concealed or otherwise, into the Building at any time.

(36) Landlord reserves the right to rescind, amend and add Building Rules, and to waive Building Rules with respect to any tenant or tenants.

(The remainder of this page intentionally left blank.)

EXHIBIT E

FORM OF ESTOPPEL CERTIFICATE

The undersigned ("Tenant"), in consideration of One Dollar ($1.00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby certifies to ("Landlord"), [the holder or prospective holder of any mortgage covering the property] (the "Mortgagee") and [the vendee under any contract of sale with respect to the Property] (the "Purchaser") as follows:

1. Tenant and Landlord executed a certain Lease Agreement (the "Lease"), dated , 20 , covering the floods) shown attached on the plan annexed hereto as Exhibit A-l (the "Leased Premises") in the building located in the known as and by the street number (the "Building"), for a term commencing on ,20 , and expiring on .

2. The Lease is in full force and effect and has not been modified, changed, altered or amended in any respect.

3. Tenant has accepted and is now in possession of the Leased Premises and is paying the full Rent under the Lease.

4. The Base Rent payable under the Lease is $ per month. The Base Rent and all Additional Rent and other charges required to be paid under the Lease have been paid for the period up to and including .

5. Tenant has provided Landlord with the following as Security for the Lease: .

6. No Rent under the Lease has been paid for more than thirty (30) days in advance of its due date.

7. All work required under the Lease to be performed by Landlord has been completed to the full satisfaction of Tenant.

8. There are no defaults existing under the Lease on the part of either Landlord or Tenant.

9. There is no existing basis for Tenant to cancel or terminate the Lease.

10. As of the date hereof, there exist no valid defenses, offsets, credits, deductions in rent or claims against the enforcement of any of the agreements, terms, covenants or conditions of the Lease.

11. Tenant affirms that any dispute with Landlord giving rise to a claim against Landlord is a claim under the Lease only and is subordinate to the rights of the holder of all first lien mortgages on the Building and shall be subject to all the terms, conditions and provisions thereof. Any such claims are not offsets to or defenses against enforcement of the Lease.

12. Tenant affirms that any dispute with Landlord giving rise to a claim against Landlord is a claim under the Lease only and is subordinate to the rights of the Purchaser pursuant to any contract of sale. Any such claims are not offsets to or defenses against enforcement of the Lease.

13. Tenant affirms that any claims pertaining to matters in existence at the time Tenant took possession and which are known to or which were then readily ascertainable by Tenant shall be enforced solely by money judgment and/or specific performance against the Landlord named in the Lease and may not be enforced as an offset to or defense against enforcement of the Lease.

14. There are no actions, whether voluntary or otherwise, pending against or contemplated by Tenant under the bankruptcy laws of the United States or any state thereof.

15. There has been no material adverse change in Tenant's financial condition between the date hereof and the date of the execution and delivery of the Lease.

16. Tenant acknowledges that Landlord has informed Tenant that an assignment of Landlord's interest in the Lease has been or will be made to the Mortgagee and that no modification, revision, or cancellation of the Lease or amendments thereto shall be effective unless a written consent thereto of the Mortgagee is first obtained, and that until further notice payments under the Lease may continue as heretofore.

17. Tenant acknowledges that Landlord has informed Tenant that Landlord has entered into a contract to sell the Property to Purchaser and that no modification, revision or cancellation of the Lease or amendments thereto shall be effective unless a written consent thereto of the Purchaser has been obtained.

18. This certification is made to induce Purchaser to consummate a purchase of the Property and to induce Mortgagee to make and maintain a mortgage loan secured by the Property and/or to disburse additional funds to Landlord under the terms of its agreement with Landlord, knowing that said Purchaser and Mortgagee rely upon the truth of this certificate in making and/or maintaining such purchase or mortgage or disbursing such funds, as applicable.

19. Except as modified herein, all other provisions of the Lease are hereby ratified and confirmed.

TENANT:

Liquidia Technologies, Inc., a Delaware corporation

By: _____

Attest: Name: _____

By: _____ Title: _____
Secretary

Date: _____

EXHIBIT F
(Page 1 of 12)

ITEMIZED INVENTORY OF HAZARDOUS OR TOXIC MATERIALS chemical name

chemical name
(2-(acryloyloxy)ethyl) trimethylammonium chloride
(3S)-cis-3,6-dimethyl-1,4-dioxane-2,5-dione, 98%
1,1,1-trichloroethane
1.1.2.2-tetrabromoethane
1.1.3.3-tetramethyldisiloxane
1.1'-dioactadecyl-3.3.3'.3'-tetramethylindocarbocyanine perchlorate, 97%
I.I'-dioactadecyl-3.3.3'.3'-tetramethylindodicarbocyanine perchlorate, >=95%
1.2-propanediol
1.3-bis(Trifluoromethyl) benzene
1.3-butanediol
1.3-diaminopropane,99%
1.3-propanediol
1.4-butanediol
1.4-butanediol diacrylate
1.4-Diazabicyclo(2,2,2) octane
1.4-dioxane
1.4-dioxane-2,5-dione
1,6-diisocyanatohexane
1,8-diazabicyclo[5.4.0] undec-7-ene
1 -benzoyl acetone
1 -butane thiol
1-butanol
1H,1H,2H,2H-perfluoro-1-octanol
1-hydroxycyclohexyl phenyl ketone, 99%
1-octadecanethiol
1 -octanol
1 -pentanol
1-vinyl-2-pyrrolidone, 99+%
1-vinylimidazole
2-(2-butoxyethoxy) ethanol
2-(dimethylamine) ethyl methacrylate
2,2'-azobisisobutyronitrile, 98%
2.2-bis(4-trifluorovinyloxyphenyl)-1,1,1,3,3,3-hexafluoropropane
2.2-diethoxyacetophenone
2.2-dimethoxy propane
2.2-dimethoxy-2-phenylacetophenone, 99%
2.5-bis(tert-butylperoxy)-2,5-dimethylhexane, tech., 90%
2.6-dimethyl-4-heptanone
2.6-di-tert-butyl-4-methylphenol
2-allyloxyethanol
2-aminoethyl methacrylate hydrochloride, 90%
2-butanone
2-butanone oxime
2-ethoxyethanol
2-ethyl-4-methyl-imidazole, 95%
2-furaldehyde

2-heptanone, aka methyl amyl ketone
2-hydroxy-2-methylpropiophenone

2-hydroxyethyl disulfide
2-hydroxyethyl methacrylate
2- isocyanatoethyl methacrylate
2- isocyanatoethyl methacrylate
2-methoxyethanol
2-methoxypropene
2-n-morpholinoethyl acrylate
3-(trichlorosilyl)propyl methacrylate
3-(triethoxysilyl) propyl isocyanate
3-(trimethoxysilyl) propyl methacrylate
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-l-decanethiol
3.6-dioxa-1,8-octanediothiol
3,9-divinyl-2,4,8,10-tetraoxaspiro(5.5)-undecane
3-aminopropyltriethoxysilane
4-(1,1,2,2,3,3,4,4l5,5,6,6,7,7l8,8,8-heptafluoro-octyl)-1H-imidazole
4,4’-bis(4-trifiuorovinyioxy) biphenyl
4,4-bis(diethyl amino)benzophenone
4,4’-trimethylenedipiperidine
4-Acetylphenyl isocyanate
4-di(methylamino) pyridine
4-fIuorostyrene
4-hydroxy-4-methyl-2-pentanone
4-methyl-2-pentanol
4-methyl-2-pentanone
4-vinyl-1-cyclohexene 1,2 epoxide
4-vinylbenzyl chloride
5-fluorouracil
60A liquid urethane activator
60A liquid urethane base
80A liquid urethane activator
80A liquid urethane base
8515 DL2M
8515 DL Low IV
94A liquid urethane activator
94A liquidia urethane base
a,a’-dichloro-p-xylene
acetic acid, glacial
acetone
acetone-d6
acetonitrile
acetylacetone
acrylamide
acrylic acid
acrylic adhesive
activated carbon
Albumin, human factor V
ally! acetoacetate
allyl bromide
allyl disulfide
aluminum foil
aluminum oxide
aluminum oxide, basic
aluminum oxide, weakly acidic
ammonium formate
aniline
anisaldehyde

arabinogalactan
Asp-Asp-Asp-Asp
benzyl chloride
bis (4-tert-butylphenl)iodonium perfluoro-1-butanesulfonate, 99+%
bisphenol A glycerolate (1 glycerol/phenol) diacryiate
b-mercaptoethanol
boric acid
bromobenzene
bromocresol green
bromophenol blue solution
butyl acetate
carbon disulfide
catalyst T 121 Blue
cellulose acetate
cellulose acetate butyrate
cetyltrimethlyammonium bromide
chitosan
chitosan
chitosan oligosaccharide lactate
chlorobenzene
chloroform
chloroform-d
chloromethyldimethylsilane
chlorotrimethylsilane
cholesteryl 3B-(n-(dimethylaminoethyl) carbamate)
cholesteryl n-(trimethylammonioethyl) carbamate chloride
cholesteryl-N-(Trimethylammonioethyl) carbamate chloride
chromium(VI) oxide
collodion
coumarin

coumarin 6
cyanoacrylate ester
cyclohexane
cyclohexanone
cyracure photoinitiator uvi-6976
cytop
cytop
cytop
Desmodur N 3600
di(ethylene glycol) divinyl ether
di(ethylene glycol) vinyl ether
diacetone acrylamide
dibutylamine
dibutyltin dilaurate
dichloromethane
dicyclopentadiene dioxide, 97%
DiD oil, 1.1’-dioctadecyl-3.3.3’.3’-tetramethylindodicarbocyanine perchlorate
diethanolamine
diethylenetriamine
dimethoxymethanr
dimethyl formamide
dimethyl sulfoxide-d6
dimethyltin dichloride
di-n-butyltin diacetate, 95%
dioctyl sulfosuccinate, sodium salt, 96%
diphenyl(2,4,6-trimethylbenzoyl)-phopshine oxide / 2-hydroxy-2-methylpropiophenone

diphenyliodonium hexafluorophosphate, 98+%
dipropylene glycol
dithiothreitol
DMSO
dodecyl sulfate
dowex 1 x4 ion exchange resin
drierite
DSP-Lomat’s Reagent
duro-tak 387-2051
e-caprolatone monomer
epichlorohydrin, 99+%
epoxy embedding medium, accelerator
ethanol
ethanol
ethanolamine
ethanolamine
ethyl 4-aminobenzoate, aka benzocaine
ethyl acetate
ethyl ether
ethyl formamate
ethyl oxo-(4-trifluoromethylphenyl) acetate
ethylene diamine
ethylene glycol
ethylene glycol BIS
fastformTM silver plating solution
flashcure light cure adhesive
fluorescein
fluorescein isothiocyanate, mixed isomers
fluorescein o-acrylate
fluorolink 1500
fluorolink D
fluorolink D4000
fluorolink T
formamide
formic acid
fullerene
gelatin
girard’s reagent t
glycerol
glycerol dimethacrylate
glycerol, 99% GC
glycerol-1-allylether
glycidol
glycidyl methacrylate, 97%
glycidyl methacrylate, 97%
Glycine, for molecular biology
Gly-Gly-Gly-Gly-Gly-Gly
heptane
hexamethylenediamine, 98%
hexane
hexanes, isomers
holo-transferrin human
hydrochloric acid, 37% ACS grade
hydrogen peroxide, 30%
hydroxyethyl acrylate
hydroxypropyl methyl cellulose

ibuprofen
indium(lll) chloride
indium(lll) nitrate hydrate
Indomethacin
iron(ll) chloride
iron(lll) chloride hexahydrate

isophorone
isophorone diisocyanate, 98%
isophorone-diamine, >=99%
isopropanol
isopropanol acs grade
isopropanol, electronic grade
Itraconazole
Itraconazole
Itraconazole, minimum 98% TLC
Krytox
Krytox hexafluoropropylene oxide homopolymer alcohol
loctite Nuva-Sil Medical Device adhesive
M 4512
magnesium sulfate
magnesium sulfate, anhydrous, reagent grade, 97%
Maxima C Plus vacuum pump oil
methacrylic acid
methacrylic acid glycidyl ester
methacryloxypropyltrichlorosilane
methacryloyl chloride
methanol
methanol
methanolic hydrchloric acid
methylcyclohexane
methylenedi-p-phenyl
methyltributylammonium chloride, 75% solution in water
molecular sieves, 4A
molecular sieves, 5A
mono-2-(methacryloyloxy)ethyl succinate
N-(2-Aminoethyl)-3-aminopropylmethyldimethoxysilane
n.n.n’.n’-tetramethylethylenediamine
naproxen
neopentyl glycol diglycidyl ether, tech.
N-heptafluorobutyrylimidazole, 97%
nickel chloride-6-hydrate
nickel(II) sulfate hexahydrate
n-isopropylacrylamide
nitric acid
nitrobenzene
n-methylallylamine
NOA74
n-tris(hydroxymethyl)methyl acrylamide

n-vinylcaprolactam
o-(2-(3-mercaptopropionylamino)ethyl)-o-’methyl-PEG 5000
o-(2-mercaptoethyl)-o’-methyl-hexa(ethylene glycol)
oxalic acid, dihydrate
perchloric acid
perfluorodecalin
perfluorohexane

phenanthrenequinone
phenol
phosphate buffer
phosphoric acid
photoinitiator (SEC-15)
platinum(0)-1,3-divinyl-1,1,3,3-tetramethyldisiloxane
poly(2-hydroxyethyl methacrylate)
poly(dimethylsiloxane) hydroxy terminated, viscosity 1000cP
poly(dimethylsiloxane) hydroxy terminated, viscosity 500cP
poly(dimethylsiloxane), 200 fluid
poly(dimethylsiloxane), hydroxy terminated (base, cure agent)
poly(dimethylsiloxane), methacryloxypropyl terminated
poly(dimethylsiloxane), methacryloxypropyl terminated, 1000 cSt
poly(dl-lactide/glycolide)
poly(dl-lactide/glycolide) 50/50
poly(ethylene glycol) (400) mono-methacrylate
poly(ethylene glycol) acrylate
poly(ethylene glycol) bis (3-aminopropyl) terminated
poly(ethylene glycol) diacrylate
poly(ethylene glycol) diacrylate
poly(ethylene glycol) diglycidyl ether
poly(ethylene glycol) methacrylate
poly(ethylene glycol) methyl ether
poly(ethylene glycol) monoethyl ether monomethacrylate
poly(ethylene glycol), MW 200
poly(ethylene glycol-polylactic acid diblock polymer-peg(1000)-B-pla(750)
poly(ethylene glycol-polylactic acid diblock polymer-peg(5000)-B-pla(1000)
poly(ethylene oxide-propylene oxide)
poly(ethylene terephthalate)
poly(L-lactide)
poly(methyl methacrylate)
poly(styrenesulfonate)/poly(2,3-dihydrothieno(3,4-b)-1,4-dioxin)
poly(tetrafluoroethylene oxide-co-di-fluoromethylene oxide) a,w-diol, ethoxylated
poly(tetrafluoroethylene)
poly(vinyl alcohol)
poly(vinyl alcohol) 75%
poly(vinyl alcohol), 98%
poly(vinyl pyrrolidine), MW 10000
poly(vinyl pyrrolidine), MW 40000
polyaniline
polycaprolactone
polyethylene
polyethylene glycol 4000 solution

polyethylene glycol diacrylate, 97%
polylactic acid
polylactide
polyoxyethylenesorbitan monooleate tween 80
polypyrrole
polythiophene polymer
polyvinyl alcohol
potassium bromide
potassium carbonate anhydrous
potassium hydrogen phthalate
potassium hydroxide
potassium hydroxide
potassium tert-butoxide, 97.0%

povidone
prism surface insensitive instant adhesive
propionitrile
propylene carbonate
propylene glycol monomethyl ether acetate
protamine sulfate
p-styrenesulfonyl chloride
p-toluenesulfonic acid monohydrate
p-toluenesulfonic acid, polymer bound
pyrene
pyridine
pyridinium p-toluenesulfonate
rhodamine b
RnaseZap
sea sand
semicosil 936 UV
sephadex g-10
sephadex g-15
silica
silicon dioxide, hexamethyldisilazane treated
silicon oil
sodium carbonate
sodium chloride, acs reagent, >=99.0%
sodium diethyldithiocarbamate trihydrate
sodium hydride
sodium hydroxide
sodium sulfate
sodium tetraborte decahydrate, acs reagent, 99.5-105.0%
solkane (1,1,1,3,-pentafluorobutane)
span 80
SU-8 1500
SU-8 2010
SU-8 2050
SU-8 Developer
SU-8 Series Resists
succinic dihydrazide
sulfathiazole
sulfuric acid, babcock grade
sulfuric acid, reagent grade, 95-98%
sylgard® 184 silicone elastomer kit, curing agent and base
TEGO 709
TEGQ711
TEGO 902
tert-amyl alcohol aka methyl amyl alcohol
tert-butyl peroxide, 98%
tetrabutyl ammonium bisulfate, 97%
tetrabutyl ammonium bisulfate, 99%
tetrachloroethylene
tetraethylthiuram disulfide
tetrahydrofuran
tetrahydrofuran
thioglycolic acid
thioxanthen-9-one
tin(ll) 2-ethylhexanoate
tin(IV) chloride
tin(IV) chloride pentahydrate

titanium(IV) butoxide
titanium(IV) ethoxide
titanium(IV) isopropoxide
titanium(IV) oxide, nanopowder
toluene
toluene
toluene-2,4-diisocyanate
transferrin, human
trichloro(1H,1H,2H,2H-perfluorooctyl)-silane, 97%
trichloroethylene
triethoxysilane
triethylamine
triethylamine
trimethyl orthoacetate
trimethyl orthoformate
trimethylolpropane ethoxylate triacrylate
trimethylolpropane triacrylate
trimethylolproprane diallyl ether
triphenylsulfonium perfluoro-1-butanesulfonate, 99+%, electronic grade

tris(triphenylphosphine) rhodium(l) chloride
Tween 20
UV acrylate
vacuum pump oil 19

Wacker SilGel 1507
Water, HPLC grade
xylenes
z tetraol
z-dol
z-dol tx
zinc acetate dihydrate
zinc trifluoromethanesulfonate, 98%
Zonyl fluoroadditive Zonyl fiuoromonomer

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EXHIBIT G

RENEWAL OPTIONS

As long as (i) Tenant is not in default under this Lease as defined in Section 9.02 at the time of exercise of each Renewal Option (as hereinafter defined) or at the time of commencement of each Renewal Term (as hereinafter defined), (ii) Tenant has not been in monetary default of this Lease as defined in Section 9.02, as evidenced by receipt of written notice from Landlord of such monetary default, more than two (2) times during the Term, and Tenant has not been in non-monetary default under this Lease, as evidenced by receipt of written notice from Landlord of such non-monetary default, more than four (4) times during the Term, and (iii) Tenant is in occupancy of the Leased Premises at the time of exercise of each Renewal Option and at the time of commencement of each Renewal Term, then Tenant is granted two (2) options (each a "Renewal Option") to renew the Term of this Lease for two (2) consecutive periods of three (3) additional years each (each a "Renewal Term"), to commence upon the expiration of the initial Term, and first (1st) Renewal Term, of this Lease. Tenant shall exercise each Renewal Option by delivering written notice of such election to Landlord at least nine (9) months prior to the expiration of the Term, including any Renewal Term. The renewals of this Lease shall be upon the same terms and conditions of this Lease, except (a) the Base Rent during each Renewal Term shall be the then prevailing Market Base Rent Rate (defined below) for similar space in the Building or Project at the time such Renewal Term commences, (b) Tenant shall have no option to renew this Lease beyond the expiration of the second (2nd) Renewal Term, (c) Tenant shall not have the right to assign its renewal rights to any subtenant of the Leased Premises or assignee of this Lease, nor may any such subtenant or assignee exercise such renewal rights, and (d) the leasehold improvements will be provided for Tenant's continued use in their then existing condition (on an "as is" basis) at the time the Renewal Term commences.

As used in this Lease, the term "Market Base Rent Rate" shall mean the prevailing annual rental rate then being charged for single-story, generic office space comparable to other office space in the Project (taking into consideration, but not limited to, use, location and floor level within the applicable building, definition of rentable area, leasehold improvements provided, quality and location of the applicable building, rental concessions (e.g., such as abatements or Lease assumptions) and the time the particular rate under consideration became effective). It is agreed that bona fide written offers to lease the Leased Premises or comparable space made to Landlord by third parties (at arm's-length) may be used by Landlord as an indication of Market Base Rent Rate.

Whenever in this Lease a provision calls for a rental rate to be, or be adjusted to, the Market Base Rent Rate, Tenant shall continue to pay Base Rent as so adjusted and the Additional Rent as provided in this Lease.

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EXHIBIT H

FIRST OFFER RIGHT

As long as (i) Tenant is not in default under this Lease as defined in Section 9.02 at the time of exercise of this option or at the time of commencement of the term for the additional space, (ii) Tenant has not been in monetary default of this Lease as defined in Section 9.02, as evidenced by receipt of written notice from Landlord of such monetary default, more than two (2) times during the Term, and Tenant has not been in non-monetary default under this Lease, as evidenced by receipt of written notice from Landlord of such non-monetary default, more than four (4) times during the Term, and (iii) Tenant is in occupancy of the Leased Premises (in the same, or greater, amount of square footage that was occupied by Tenant as of the Commencement Date) at the time of exercise of this option and at the time of commencement of the term for the additional space, then Landlord hereby grants to Tenant, but not any assignee or subtenant of Tenant, a right (the "First Offer Right") during the Term to lease in its entirety any space that becomes available that is contiguous to the Leased Premises provided that Tenant leases a minimum of 10,000 to 15,000 additional square feet in the Building (the "Space") that may become available (i.e., vacant) with the understanding that the configuration and total square footage contained in the Space shall be determined by Landlord, in Landlord's sole, but reasonable, discretion and Landlord shall notify Tenant of such configuration and square footage at the time of Landlord's written notice to Tenant of the availability of the Space. Landlord shall offer the Space to Tenant at the prevailing Market Base Rent Rate (defined below), upon the following terms and conditions:

The First Offer Right set forth herein is subject to any prior existing rights of any third parties and Landlord's hereby reserved right to continue to lease (by lease amendment or new lease agreement) the Space to the tenant, assignee or subtenant occupying the Space, whether or not pursuant to an option to renew. Landlord specifically acknowledges and agrees that, as of the Execution Date, there are no other tenants in the Project with any rights to the Space, except for the existing tenant, International Business Machines Corporation.

1. Prior to Landlord leasing the Space to any third party. Landlord shall provide Tenant with written notice of the availability of the Space and written terms of the expansion.

2. Tenant shall then have ten (10) business days from the date of Landlord's notice in which to respond, in writing.

3. If Tenant elects to lease the Space, Tenant shall provide Landlord with written notice of such election within ten (10) calendar days of the date of Landlord's notice. The parties shall then have thirty (30) calendar days from the date of Tenant's notice to agree to mutually acceptable terms for Tenant's leasing the Space and to execute an amendment to this Lease specifying the terms of the expansion.

4. Tenant shall accept the Space in its then-existing condition. The term of this Lease with regard to the Space shall commence on Tenant's occupancy of the Space (the "Space Commencement Date"); provided, however, that in no event shall the Space Commencement Date be later than thirty (30) calendar days after the expiration of the prior tenant's lease. The term of this Lease for the Space shall expire on the later of: (i) coterminously with the Expiration Date of this Lease, as such may be amended, or (ii) three (3) years from the Space Commencement Date, in which such event the Term of this Lease for the entire Leased Premises shall also be extended to such date.

5. If Tenant does not respond to Landlord's notice within such ten (10) business day period or provides Landlord with written notice that Tenant does not elect to lease the Space, or if Landlord and Tenant, working in good-faith, fail to execute an amendment to this Lease with regard to the Space, then the First Offer Right shall terminate with regard to the Space described in Landlord's notice, and Landlord may thereafter lease the Space that was described in Landlord's notice to any third party on the terms set forth in Landlord's notice to Tenant. If such Space becomes available to lease at a later date during the Term, or if Landlord does not lease such Space on the terms set forth in the notice, then Landlord must again offer such Space to Tenant for lease, and the terms and provisions of this First Offer Right shall apply to such re-offered Space.

6. Notwithstanding the foregoing, in the event Tenant leases the Space (either during an initial offering of such Space or a re-offering of such Space), Tenant shall, at Tenant's sole cost and expense, bring any remaining vacant space in the Building (the "Vacant Space") to a similar condition to that which existed immediately prior to Tenant's exercise of its First Offer Right ("Leasable Condition"), including, but not limited to, (i) ensuring Leasable Condition electrical capacity in the Vacant Space, (ii) ensuring Leasable Condition plumbing facilities (including rest rooms) in the Vacant Space, (iii) build-out of a main entry for the Vacant Space, and (iv) any other items required by any federal, state or municipal building code for the Vacant Space (the work done to bring the Vacant Space to a Leasable Condition shall be "Tenant's Work in the Vacant Space"). Subject to the aforementioned code requirements, Landlord shall have the right to approve Tenant's Work in the Vacant Space, with Landlord acting reasonably.

As used in this Lease, the term "Market Base Rent Rate" shall mean the annual rental rate then being charged in the greater Research Triangle Park/Interstate-40 area of North Carolina for space comparable to the space for which the Market Base Rent Rate is being determined (taking into consideration, but not limited to, use, location and floor level within the applicable building, definition of rentable area, leasehold improvements provided, quality and location of the applicable building, rental concessions (e.g., such as abatements or Lease assumptions) and the time the particular rate under consideration became effective). It is agreed that bona fide written offers to lease the Leased Premises or comparable space made to Landlord by third parties (at arm's-length) may be used by Landlord as an indication of Market Base Rent Rate.

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STATE OF NORTH CAROLINA

DURHAM COUNTY LEASE MODIFICATION AGREEMENT NO. 1

THIS LEASE MODIFICATION AGREEMENT NO. 1 (this "Agreement") is made and entered into as of this ' day of ,-2008 (the "Execution Date"), by and between **GRE Keystone Technology Parjr One LLC,** Delaware limited liability company ("Landlord"), and **Liquidia Technologies, Inc.,** a Delaware corporation authorized to conduct business in the State of North Carolina ("Tenant").

WITNESSETH:

WHEREAS, Landlord and Tenant entered into that certain Lease Agreement dated June 29, 2007 (the "Lease"), pursuant to which Tenant leased approximately 21,210 square feet of flex space contained in Suite 600 (the "Leased Premises") of the building known as Keystone Technology Park - Building IV, and located at 419 Davis Drive, Durham, North Carolina 27713 (the "Building"). (The Lease is incorporated herein by reference in its entirety. Any capitalized term used and not otherwise defined herein shall have the meaning ascribed to it in the Lease.); and

WHEREAS, Section 4.09 of the Lease (Amortization of Excess Upfit) allows Tenant, at its option, to pay as Additional Rent the amount that is in excess of the Allowance for the Upfit to the Leased Premises, up to a maximum of Seven Hundred Sixty-eight Thousand Eight Hundred Sixty-two Dollars and Fifty Cents ($768,862.50) (the "Amortized Allowance"), amortized using an annual interest rate of seven percent (7%), commencing November 1, 2008 and amortized over the remaining initial Term of the Lease (*i.e.*, through October 31, 2014), and paid in equal monthly installments (such actual monthly payment shall be the "Upfit Amortization"); and

WHEREAS. Tenant has notified Landlord of Tenant's desire repay the Amortized Allowance as Additional Rent under the Lease; and

WHEREAS. Landlord and Tenant desire to amend the Lease setting forth the actual repayment amount for the Amortized Allowance upon the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the premises, rent, mutual covenants and conditions contained herein, and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. Amortized Allowance Repayment. Pursuant to Section 4.09 of the Lease, commencing November 1, 2008 and continuing each month through the remainder of the initial Term of the Lease (i.e., through October 31, 2014), the Amortized Allowance payable by Tenant to Landlord shall equal $13,108.34 per month. The monthly payment shall be due and payable as of the first day of each month in the same manner as Base Rent under Section 4.01 of the Lease and subject to a Late Charge for late payments in accordance with Section 4.08 of the Lease.

2. Affirmation of Lease Terms. Except as expressly modified herein, the original terms and conditions of the Lease shall remain in full force and effect.

3. Binding Agreement. Upon execution by Tenant, this Agreement shall be binding upon Tenant, its legal representatives and successors, and, to the extent assignment may be approved by Landlord hereunder. Tenant's assigns. Upon execution by Landlord, this Agreement shall be binding upon Landlord, its legal representatives, successors and assigns. This Agreement shall inure to the benefit of Landlord and Tenant, and their respective representatives, successors and permitted assigns.

4. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have caused this Agreement to be executed by their respective duly authorized representatives as of the day and year first above written.

LANDLORD:

GRE Keystone Technology Park One LLC, a Delaware limited liability company

By: GRE Keystone Technology Park Holdings LLC, a Delaware limited liability company, its Sole Member

By: Capital Associates Management, LLC, a North Carolina limited liability company, acting as Investment Manager for GRE Keystone Technology Park Holdings LLC

By: /s/ Stephen P. Porterfield
Stephen P. Porterfield, Delegate Manager

TENANT:

Liquidia Technologies, Inc, a Delaware corporation

By: /s/ Bruce Boucher

Name: Bruce Boucher

Title: President

STATE OF NORTH CAROLINA
DURHAM COUNTY LEASE MODIFICATION AGREEMENT NO. 2

THIS LEASE MODIFICATION AGREEMENT NO. 2 (this "Agreement") is made and entered into as of this day of , 2010 (the "Execution Date"), by and between **GRE Keystone Technology Park One LLC,** a Delaware limited liability company ("Landlord"), and **Liquidia Technologies, Inc.,** a Delaware corporation authorized to conduct business in the State of North Carolina ("Tenant").

WITNESSETH:

WHEREAS, Landlord and Tenant entered into that certain Lease Agreement dated June 29, 2007 (the "Original Lease"), pursuant to which Tenant leased approximately 21,210 square feet of space contained in Suite 600 (the "Original Leased Premises") of the building known as Keystone Technology Park - Building IV, and located at 419 Davis Drive, Durham, North Carolina 27713 (the "Building"); and

WHEREAS, Landlord and Tenant entered into that certain Lease Modification Agreement No. 1 dated January 12, 2009 ("Amendment No. 1"), pursuant to which the Upfit Amortization for the Amortized Allowance was set forth. The Original Lease and Amendment No. 1 are incorporated herein by reference in their entirety and hereinafter collectively referred to as the "Lease". Any capitalized term used and not otherwise defined herein shall have the meaning ascribed to it in the Lease; and

WHEREAS, the Suite number set forth in the Lease is Suite 600, but Tenant is using Suite number 100 instead; and

WHEREAS, Exhibit H to the Lease (First Offer Right) contains a First Offer Right for Tenant to lease additional space in the Building that is contiguous to the Original Leased Premises, and Tenant has exercised its First Offer Right for certain additional space; and

WHEREAS, Landlord and Tenant desire to modify the Lease in order to expand the Original Leased Premises and to make certain other modifications to the Lease, upon the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the premises, rent, mutual covenants and conditions contained herein, and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. Notice Addresses.

The notice address for Landlord, provided in Subsection 2.01(k) of the Lease shall change to the following:

GRE Keystone Technology Park One LLC
c/o Capital Associates
1255 Crescent Green, Suite 300
Cary, North Carolina 27518
(919)233-9901

Landlord and Tenant specifically acknowledge and agree that Landlord's address for Rent payments shall remain as set forth in Subsection 2.01(k) of the Lease.

2. Suite Number. Effective as of the Execution Date, Subsection 2.01(b) of the Lease is amended to show that the Suite number for the Leased Premises is "Suite 100".

3. Leased Premises/Occupancy Limit.

4. Effective as of March 1, 2011 (the "Expansion No. 1 Date"), Subsection 2.01(b) of the Lease is amended to show that the "Leased Premises" shall contain approximately 36,831 square feet of space, including the 15,621 square feet of additional space contained in the Building and shown on Exhibit A-1-a ("Expansion No. 1")

and thereafter the Leased Premises shall be as described in the attached Exhibit A-1-b, both of which are incorporated by reference in this Agreement in their entirety.

5. Effective as of March 1, 2011, the Permitted Maximum Occupancy set forth in Subsection 2.01(i) of the Lease shall be changed to "145 persons".

6. Rent. Effective as of the Expansion No. 1 Date, Base Rent shall be as follows:

7. Base Rent shall be a blended sum of the following: for the Leased Premises, Base Rent shall continue to be as set forth in the Original Lease (including all escalations as set forth therein), and with regard to Expansion No. 1, (i) shall be equal to $10.70 per square foot, per annum, (ii) abated in full for the first six (6) full months after the Expansion No. 1 Date and abated in part (so that the rental shall equal $5.35 per square foot, per annum) for full months seven (7) through nine (9) after the Expansion No. 1 Date, and (iii) escalated by 3.0% on the first day of the 13th full anniversary month and each subsequent annual anniversary of the Expansion No. 1 Date throughout the Term (i.e., each March 1st); and

8. Therefore, the Base Rent chart set forth in Subsection 2.01(d) of the Lease is amended as follows:

Full Month(s) after Expansion No. 1 Date	Date(s)	Original Leased Premises Monthly Base Rent (21,210SF)	Expansion ' No. 1 Monthly Base Rent (15,621 SF)	Total Monthly Base Rent	Annual (or for time period noted) Base Rent
Prior to Expansion No. 1	11/1/10 through 2/28/11	$20,279.65	N/A	$20,279.65	$40,559.30 (for 2 months)
1 through 6	3/1/11 through 8/31/11	$20,279.65	$0.00 ($10.70/SF Base Rent abated)	$20,279.65	$121,677.90 (for 6 months)
7 through 9	9/1/11 through 11/30/11	$20,279.65	$6,964.36 (1/2 of S10.70/SF Base Rent abated)	$27,244.01	$81,732.03 (for 3 months)
10 through 12	12/1/11 through 2/29/12	$20,888.04	$13,928.73	$34,816.77	$104,450.31 (for 3 months)
13 through 20	3/1/12 through 10/31/12	$20,888.04	$14,346.59	$35,234.63	$281,877.04 (for 8 months)
21 through 24	11/1/12 through 2/28/13	$21,514.68	$14,346.59	$35,861.27	$143,445.08 (for 4 months)
25 through 32	3/1/13 through 10/31/13	$21,514.68	$14,776.99	$36,291.67	$290,333.36 (for 8 months)
33 through 36	11/1/13 through 2/28/14	$22,160.12	$14,776.99	$36,937.11	$147,748.44 (for 4 months)
37 through 44	3/1/14 through 10/31/14	$22,160.12	$15,220.30	$37,380.42	$299,043.36 (for 8 months)

In addition to the foregoing, Tenant shall continue to be liable to Landlord for the Additional Rent applicable to the Original Leased Premises and Expansion No. 1 as set forth in the Lease. For purposes of clarity, Tenant will be liable to Landlord for the Additional Rent applicable to Expansion No. 1 during the abated Base Rent period set forth above. Effective as of the Expansion No. 1 Date, Tenant's total monthly TICAM Expense Adjustment payment is estimated to equal $8,962.21 based upon estimated TICAM Expenses of $2.92 per square foot, per annum.

9. Cap on TICAM Expenses. The last three sentences of Section 4.04 (c) shall be deleted in its entirety and replaced with the following:

Notwithstanding the foregoing, commencing January 1, 2011, and for purposes of determining Tenant's annual TICAM Expense Adjustment in any calendar year of the Term, the TICAM Expenses which are controllable by Landlord (the "Controllable TICAM") shall not exceed the Controllable TICAM for the year ending December 31, 2010 (which for purposes of the annual TICAM Expense Adjustment calculation shall be treated as the "base year"), increased at a rate of five percent (5%), compounded annually. The limitation shall not apply to the following expenses: taxes, insurance, utilities, refuse collection, weather related cleanup, and any other TICAM Expense item not within Landlord's reasonable control (the "Uncontrollable Expenses"). Any expenses other than Uncontrollable Expenses shall be Controllable TICAM.

10. Tenant Improvements. Effective as of the Execution Date, the Lease is amended by the addition of the attached Exhibit B with respect to the fitup work in the Original Leased Premises and Expansion No. 1.

11. Security. Within ten (10) business days of the full execution and delivery of this Agreement, Tenant shall provide Landlord with additional Security for the Lease in the amount of $11,000.00 and thereafter, Subsection 2.01(i) of the Lease will be changed to reflect the total Security for the Lease as "$36,000.00".

12. First Offer Right. Even though Tenant has exercised its First Offer Right with regard to the Space, Landlord shall keep the First Offer Right set forth in Exhibit H to the Lease intact, but the "Space" shall now be as set forth on the attached, Exhibit H-l, and Tenant shall retain the option to lease a minimum of 10,000 square feet contained in the revised Space.

13. Brokerage/Indemnification. Landlord and Tenant each represent to the other that they, respectively, have had no dealings with any real estate broker or agent in connection with the negotiation of this Agreement except for Capital Associates Management, LLC, Landlord's broker, and Cassidy Turley, Tenant' broker, and that they, respectively, know of no other real estate broker or agent who is entitled to a commission or finder's fee in connection with this Agreement. Each party shall indemnify, protect, defend and hold harmless the other party against all claims, demands, losses, liabilities, lawsuits, judgments, and costs and expenses (including, but not limited to, reasonable attorneys' fees) for any leasing commission, finder's fee or equivalent compensation alleged to be owed on account of dealings with any other than the above-stated real estate brokers by the party from whom indemnification is sought. Landlord shall pay the commissions or fees due with respect to Expansion No. 1 to the above-stated Landlord's broker. Landlord's broker will then pay Tenant's broker.

14. Affirmation of Lease. Except as expressly modified herein, the original terms and conditions of the Lease shall remain in full force and effect.

15. Binding Agreement. Upon execution by Tenant, this Agreement shall be binding upon Tenant, its legal representatives and successors, and, to the extent assignment may be approved by Landlord hereunder, Tenant's assigns. Upon execution by Landlord, this Agreement shall be binding upon Landlord, its legal representatives, successors and assigns. This Agreement shall inure to the benefit of Landlord and Tenant, and their respective representatives, successors and permitted assigns.

16. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which taken together shall constitute one and the same instrument.

(Signatures appear on the following page.)

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have caused this Agreement to be executed by their respective duly authorized representatives as of the day and year first above written.

LANDLORD:

GRE Keystone Technology Park One LLC, a Delaware limited liability company

By: GRE Keystone Technology Park Holdings LLC, a Delaware limited liability company, its Sole Member

By: Capital Associates Management, LLC, a North Carolina limited liability company, acting as Investment Manager for GRE Keystone Technology Park Holdings LLC

By: /s/ Stephen P. Porterfield
Stephen P. Porterfield, Delegate Manager

TENANT:

Liquidia Technologies, Inc, a Delaware corporation

By: /s/ Bruce Boucher

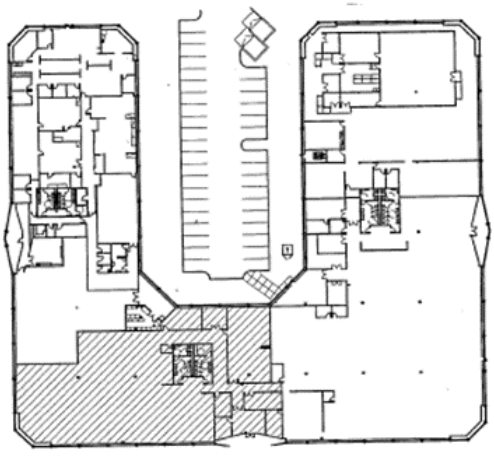
Name: Bruce Boucher

Title: President

EXHIBIT A-1-a

EXPANSION NO. 1

Keystone Technology Park - Building IV
419 Davis Drive
Durham, North Carolina 27713

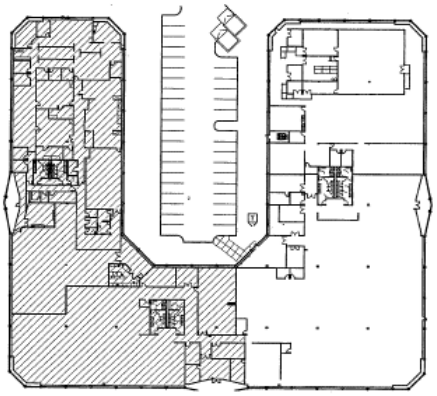


= approximately 15,621 square feet = Expansion No. 1

EXHIBIT A-b

ENTIRE LEASED PREMISES (from and after the Expansion No. 1 Date)

Keystone Technology Park - Building IV
419 Davis Drive, Suite 100
Durham, North Carolina 27713



= approximately 36,831 square feet = entire Leased Premises (from and after the Expansion No. 1 Date)

EXHIBIT B

WORKLETTER AGREEMENT

1) Existing Condition and Expansion No. 1 Tenant Improvements. The condition of the Original Leased Premises and Expansion No. 1 as of the date of this Agreement, as is and with all faults, shall be deemed the "Existing Condition". All demolition of and improvements made to the Existing Condition in accordance with the Schematic Space Plan and Plans (both defined below) shall be deemed the "Tenant Improvements".

2) Allowance. Landlord shall provide Tenant with a tenant improvement allowance in the amount not to exceed $124,968.00 (the "Expansion Allowance"), to pay for the costs and expenses incurred by Landlord for the design and construction of Expansion No. 1 and modifications to the design and construction of the Original Leased Premises. The costs and expenses shall include, but not be limited to, the costs and expenses of any (i) design and construction services related to architectural, plumbing, mechanical and electrical trades, (ii) demolition work, (iii) construction administration services provided by Landlord's architect and consulting engineers, and (iv) other work necessary to demise the space. Costs and expenses shall also include all costs associated with any contractor's general conditions, permits (including any new or changes to development, facility or transportation impact fees), taxes, insurance and fees (but shall not include a construction management fee for Landlord).

3) Design. Landlord shall cause an architect and one or more engineers, each of whom shall be designated by Landlord and reasonably approved by Tenant, to consult with Tenant and to prepare architectural, plumbing, mechanical and electrical plans that are (i) consistent with the "Schematic Space Plan" for the Leased Premises (including Expansion No. 1), (ii) sufficiently detailed for pricing, approval and construction of the Tenant Improvements, and (iii) subject to Landlord's approval, which shall not be unreasonably withheld (the "Detailed Plans"). All partitions, doors, hardware, ceiling tile, window coverings, plumbing, HVAC, lighting fixtures, switches, outlets and life safety items shall be designed in Landlord's standard manner. Carpet, paint, and millwork shall be selected and designed in Landlord's standard manner and from Landlord's standard finishes, unless otherwise agreed to by Landlord-, in accordance with Section 4 herein. Tenant shall furnish to Landlord all other information and technical data reasonably necessary for the preparation of the Detailed Plans within two (2) business days of Landlord's request therefor, or as otherwise agreed to by Tenant and Landlord, so as not to delay the design, pricing, approval and construction of the Tenant Improvements by the Expansion No. 1 Date. Tenant has authorized Bruce Boucher ("Tenant's Representative") to represent Tenant for all purposes related to the design and construction of the Tenant Improvements, including approval of the Plans and any Change Orders (as defined below), and approval by Tenant's Representative shall constitute approval by Tenant.

4) Approval of Plans and Cost. Landlord shall cause a general contractor or contractors designated by Landlord and reasonably approved by Tenant, to prepare detailed pricing of construction of the Tenant Improvements pursuant to the Detailed Plans. Landlord shall submit to Tenant for Tenant's approval (i) the Detailed Plans and (ii) an itemized cost statement of all design and construction costs related to the Tenant Improvements (the "Cost Statement"). Within five (5) business days after its receipt of the Detailed Plans and Cost Statement, Tenant shall approve the Detailed Plans and the Cost Statement in writing, subject to any modifications or changes in the Detailed Plans requested by Tenant. Landlord, in its reasonable discretion, shall retain final approval rights for the Detailed Plans. After Tenant's approval of the Detailed Plans and the Cost Statement, or in the event Tenant does not respond to Landlord within such five (5) business day period, the Detailed Plans and the Cost Statement shall be deemed to be approved by Tenant, and the approved Detailed Plans shall be thereafter deemed the "Plans". Notwithstanding anything to the contrary contained herein, if the costs and expenses of the Tenant Improvements as approved by Tenant exceed the Expansion Allowance, then Tenant shall be obligated to pay for all such excess costs. Landlord shall submit an invoice to Tenant for such excess costs at the time the Detailed Plans and Cost Statement are approved or deemed approved by Tenant, and Tenant shall pay the excess costs within fifteen (15) days of receipt of Landlord's invoice therefor. If the cost of designing and constructing the Tenant Improvements as approved by Tenant is less than the Expansion Allowance, Tenant shall not be entitled to any refund of the unused portion of the Expansion Allowance.

5) Change Orders and Additional Costs. After approval of the Cost Statement by Tenant, additional costs will likely be incurred by Landlord. These costs may include, without limitation, design costs that may not yet have been billed, design costs for selection of finishes, costs for construction clarifications and other construction

administration by the architect or engineers, construction changes required by governmental inspectors, and changes to the Plans or actual construction initiated by Tenant. From time to time, Landlord shall update the previously approved Cost Statement to account for the subsequent changes in cost, and Tenant shall pay any cost in excess of the Expansion Allowance and not previously paid by Tenant within fifteen (15) days of receipt of an invoice detailing such costs. For changes initiated by Tenant that will revise the previously approved Cost Statement or the construction schedule and increase the costs associated therewith, a change order ("Change Order") shall be prepared by Landlord, its architect, or general contractor. Each Change Order shall include information regarding any revisions to the cost and construction schedule, and shall provide sufficient information for evaluation by Landlord, its architect, and Tenant. Before the work detailed on the Change Order proceeds, Tenant's Representative must approve the Change Order, including any increase in cost and time. Tenant shall have two (2) business days to approve each Change Order, unless Landlord grants Tenant more time. If Tenant does not approve the Change Order within the approval period, the Change Order shall be deemed disapproved by Tenant. If the Change Order is not approved or deemed disapproved, Landlord shall not proceed with the work contemplated in the Change Order. If the Change Order is approved and the additional cost exceeds Five Thousand Dollars ($5,000.00), are in excess of the Expansion Allowance, and if requested by Landlord, Tenant shall pay the cost of any such Change Order before Landlord proceeds with the work that is the subject of the Change Order.

6) Construction. After Tenant (i) approves the Detailed Plans and the Cost Statement, (or if Tenant does not respond to Landlord regarding the Detailed Plans and the Cost Statement, as set forth in Section 4 herein), and (ii) pays any and all costs in excess of the Expansion Allowance as set forth in Section 4 herein, then Landlord shall be entitled to cause, and shall cause, the general contractor designated by Landlord to construct the Tenant Improvements in accordance with the Plans and the Cost Statement.

7) Delay. There shall be no delay in the commencement of payments of Rent with regard to Expansion No.1, even if the Tenant Improvements are not completed by March 1, 2011.

8) Tenant's Access to Expansion No. 1. Landlord shall permit Tenant and its agents reasonable access to Expansion No. 1 during normal business hours prior to the Expansion No. 1 Date for the purpose of installing telephone and computer cabling, equipment, fixtures and other personal property, and the entry and use of Expansion No. 1 shall not constitute acceptance of Expansion No. 1 nor Tenant's acknowledgment of the Expansion No. 1 Date of the Lease, unless Tenant commences the operation of any portion of its business therein. This right of entry onto Expansion No. 1 is a license from Landlord to Tenant which is subject to revocation in the event that Tenant or its employees, contractors or agents causes or is the cause of any code or governmental violation, labor dispute, delay or

damage during the period which results from, whether directly or indirectly, the installation or delivery of the foregoing, or otherwise becomes in default of any term, covenant or condition of the Lease as provided in Section 9.02. Prior to Tenant's entry onto Expansion No. 1 in accordance herewith, Tenant shall demonstrate to Landlord that it has obtained the insurance required and is in compliance with Section 8.04 of the Lease.

9) Warranties. Landlord shall cause the repair or replacement of any defects in material or workmanship in the Tenant Improvements installed by Landlord for a period of one (1) year after the date of substantial completion of the Tenant Improvements, or the duration of any manufacturer's warranty, whichever is longer, provided Tenant notifies Landlord of the defect as soon as reasonably practicable after the date Tenant discovers the defect. LANDLORD MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH THE TENANT IMPROVEMENTS EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 8. Tenant's sole remedy for the breach of any applicable warranty shall be the remedy set forth in this Section 8. Tenant agrees that no other remedy, including without limitation, incidental or consequential damages for lost profits, injury to person or property or any other incidental or consequential loss, shall be available to Tenant.

10) Compliance with Certain Requirements. At any time before, during, and after construction, Landlord shall have the right to require changes to the Plans and construction in order to comply with applicable building codes, other governmental requirements, and insurance requirements. Neither Landlord's nor Tenant's approval of the Plans is a warranty that the Plans comply with applicable building codes, other governmental requirements, and insurance requirements.

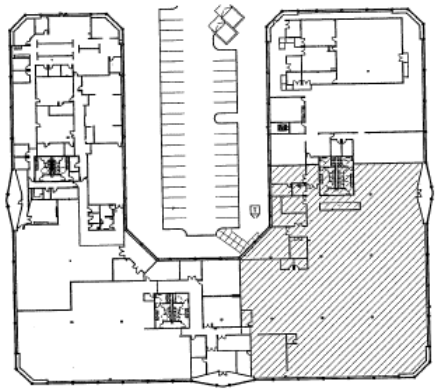
11) No Liability. Notwithstanding the review and approval by Landlord of the Detailed Plans and any changes to same, Landlord shall have no responsibility or liability, including the costs of additional or corrective work, in regard to the safety, sufficiency, adequacy or legality thereof, and Tenant shall look solely to the party(ies) preparing same as the party(ies) responsible for ensuring that the Detailed Plans and changes thereto (and the architectural and engineering completeness and sufficiency thereof and the Tenant Improvements constructed as a result thereof) are in compliance with all applicable laws and regulations, and Tenant's stated intended use.

(The remainder of this page intentionally left blank.)

EXHIBIT H_1

THE SPACE

Keystone Technology Park - Building IV
419 Davis Drive
Durham, North Carolina 27713



= approximately 25,038 square feet = the Space (as revised in Lease Modification Agreement No. 2).

THIRD AMENDMENT TO LEASE AGREEMENT

THIS THIRD AMENDMENT TO LEASE AGREEMENT (this "***Amendment***) is entered into between **LCFRE DURHAM KEYSTONE TECHNOLOGY PARK, L.P.,** a Delaware limited partnership (***'Landlord'***), and **LIQUIDIA TECHNOLOGIES, INC.,** a Delaware corporation ("***Tenant***"), with reference to the following:

A. GRE Keystone Technology Park One LLC (predecessor-in-interest to Landlord) and Tenant entered into that certain Lease Agreement dated June 29, 2007, as amended by that certain Lease Modification Agreement No. 1 dated January 12, 2009, and that certain Lease Modification Agreement No. 2 dated December 17, 2010 (as amended, the "Lease "), covering approximately 36.831 rentable square feet known as Suite 100 on the 1st floor (the "Premises") of 419 Davis Drive, Durham, North Carolina, commonly known as Keystone Technology Park - Building IV (the "***Building***").

B. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **First Extension Period**. The term of the Lease is extended for a period of 36 months (the "***First Extension Period***') commencing on November 1, 2014 and expiring on October 31, 2017 Tenant acknowledges that it has no further extension or renewal rights or options under the Lease except for the one remaining option to renew for 3 years as set forth in **Exhibit G** of the Lease.

2. **Base Rent**. Commencing on November 1, 2014 and continuing through the First Extension Period, Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent for the Premises the amounts set forth in the following rent schedules, plus any applicable tax thereon:

Premises

FROM	THROUGH	RATE	MONTHLY BASE RENT
November 1,2014	October 31. 2015	$ 12.75	$ 39,132.94
November 1,2015	October 31, 2016	$ 13.13	$ 40,299.25
November 1, 2016	October 31, 2017	$ 12.53	$ 41,526.95

3. **TICAM Expenses**. Tenant shall continue to pay Tenant's Pro Rata Share of TICAM Expenses as more particularly described in **Article 4** of the Lease during the First Extension Period.

4. **Condition of Premises**. Tenant accepts the Premises in its "as-is" condition. However, any necessary construction of leasehold improvements shall be accomplished and the cost of such construction shall be paid in accordance with the "Work Letter" between Landlord and Tenant attached to this Amendment as **Exhibit A**. Tenant acknowledges that Landlord has not undertaken to perform

any modification, alteration or improvement to the Premises. **TENANT WAIVES ANY CLAIMS DUE TO DEFECTS IN THE PREMISES**. Tenant waives the right to terminate the Lease due to the condition of the Premises. Nothing in this Section shall be deemed to negate Landlord's repair and maintenance obligations under the Lease.

5. **Consent**. This Amendment is subject to, and conditioned upon, any required consent or approval being unconditionally granted by Landlord's mortgagee(s). If any such consent shall be denied, or granted subject to an unacceptable condition, this Amendment shall be null and void and the Lease shall remain unchanged and in full force and effect.

6. **Broker**. Tenant represents and warrants that it has not been represented by any broker or agent in connection with the execution of this Amendment, except Jim Allaire of Cushman & Wakefield/Thalhimer as

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Tenant's broker, and Sue Back and Jordan Betz of Cushman & Wakefield/Thalhimer as Landlord's broker whose commissions shall be paid by Landlord pursuant to separate written agreements. Tenant shall indemnify, defend and hold harmless Landlord and its designated property management, construction and marketing firms, and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) of any other broker or agent or similar party claiming by, through or under Tenant in connection with this Amendment. Landlord shall indemnify, defend and hold harmless Tenant and its partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) of any other broker or agent or similar party claiming by, through or under Landlord in connection with this Amendment.

7. **OFAC List Representation**. Tenant hereby represents and warrants to Landlord that neither Tenant nor any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or person: (a) that is listed in the annex to. or is otherwise subject to the provisions of. Executive Order 13224 issued on September 24, 2001 ("***EO 13224"***): (b) whose name appears on the United States Treasury Department's Office of Foreign Assets Control ("***OFAC"***) most current list of "Specially Designated National and Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to. the OFAC website, http:www.treas.gov/ofac/tl lsdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

8. **Time of the Essence**. Time is of the essence with respect to Tenant's execution and delivery to Landlord of this Amendment. If Tenant fails to execute and deliver a signed copy of this Amendment to Landlord by 5:00 p.m. (in the city in which the Premises is located) on May 30, 2014, this Amendment shall be deemed null and void and shall have no force or effect, unless otherwise agreed in writing by Landlord. Landlord's acceptance, execution and return of this Amendment shall constitute Landlord's agreement to waive Tenant's failure to meet such deadline.

9. **Miscellaneous**. This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment on which the parties have relied. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns.

[Signatures to follow]

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

LCFRE DURHAM KEYSTONE TECHNOLOGY PARK, L.P., a Delaware limited partnership

By: LCFRE Durham Keystone Technology Park GP. LLC. a Delaware limited liability company, its general partner

By: /s/ Thomas P. Paterson
Name: Thomas P. Paterson
Title: Vice President
Effective date: June 25,2014

TENANT:

LIQUIDIA TECHNOLOGIES, INC., a Delaware corporation

By: /s/ Timothy Albury
Name: Timothy Albury
Title: CFO

EXHIBIT A

WORK LETTER

This Work Letter is attached as an Exhibit to that certain Third Amendment to Lease Agreement (the "***Amendment***") between **LCFRE DURHAM KEYSTONE TECHNOLOGY PARK, L.P., as Landlord, and LIQUIDIA TECHNOLOGIES, INC.,** as Tenant, that amends that certain Lease Agreement dated June 29, 2007 (as amended, the "***Lease***") and relating to the lease by Landlord to Tenant of that certain Premises. Unless otherwise specified, all capitalized terms used in this Work Letter shall have the same meanings as in the Lease as amended by the Amendment.

1. **Construction**. Tenant agrees to construct leasehold improvements (the "***Tenant Work***") in a good and workmanlike manner in and upon the Premises, at Tenant's sole cost and expense, in accordance with the following provisions. After completion. Tenant shall submit to Landlord for Landlord's approval complete plans and specifications for the construction of the Tenant Work ("***Tenant's Plans***"). Within 10 business days after receipt of Tenant's Plans, Landlord shall review and either approve or disapprove Tenant's Plans. If Landlord disapproves Tenant's Plans, or any portion thereof, Landlord shall notify Tenant thereof and of the revisions Landlord requires before Landlord will approve Tenant's Plans. Within 10 business days after Landlord's notice, Tenant shall submit to Landlord, for Landlord's review and approval, plans and specifications incorporating the required revisions. The final plans and specifications approved by Landlord are hereinafter referred to as the "**Approved Construction Documents**". Tenant will employ experienced, licensed contractors, architects, engineers and other consultants, approved by Landlord, to construct the Tenant Work and will require in the applicable contracts that such parties (a) carry insurance in such amounts and types of coverages as are reasonably required by Landlord, and (b) design and construct the Tenant Work in a good and workmanlike manner and in compliance with all laws. Unless otherwise agreed to in writing by Landlord and Tenant, all work involved in the construction and installation of the Tenant Work shall be carried out by Tenant's contractor under the sole direction of Tenant, in compliance with all Building rules and regulations and in such a manner so as not to unreasonably interfere with or disturb the operations, business, use and enjoyment of the Project by other tenants in the Building or the structural calculations for imposed loads. Tenant shall obtain from its contractors and provide to Landlord a list of all subcontractors providing labor or materials in connection with any portion of the Tenant Work prior to commencement of the Tenant Work. Tenant warrants that the design, construction and installation of the Tenant Work shall conform to the requirements of all applicable laws, including building, plumbing and electrical codes and parameters, and the requirements of any authority having jurisdiction over, or with respect to, such Tenant Work.

2. **Costs**. Subject to the terms and conditions of this **Section 2**. Landlord will provide Tenant with an allowance (the "Reimbursement Allowance") to be applied towards the cost of constructing the Tenant Work.

(A) Landlord's obligation to reimburse Tenant for Tenant's construction of the Tenant Work shall be: (i) limited to actual costs incurred by Tenant in its construction of the Tenant Work; (ii) limited to an amount up to, but not exceeding, $3.00 multiplied by the rentable square footage of the Premises; and (iii) conditioned upon Landlord's receipt of written notice (which notice shall be accompanied by invoices and documentation set forth below) from Tenant that the Tenant Work has been completed and accepted by Tenant. The cost of (a) all space planning, design, consulting or review services and construction drawings, (b) extension of electrical wiring from Landlord's designated location(s) to the Premises, (c) purchasing and installing all building equipment for the Premises (including any submitters and other above building standard electrical equipment approved by Landlord), (d) required metering, re- circuiting or re-wiring for metering, equipment rental, engineering design services, consulting services, studies, construction services, cost of billing and collections, (e) materials and labor, and (f) an asbestos survey of the Premises if required by applicable law. shall all be included in the cost of the Tenant Work and may be paid out of the Reimbursement Allowance, to the extent sufficient funds are available for such purpose. Any reimbursement obligation of Landlord under this Work Letter shall be applied solely to the purposes specified above, as allocated, within 365 days after the Effective Date or be forfeited with no further obligation on the part of Landlord.

(B) Landlord shall pay the Reimbursement Allowance to Tenant within 45 days following Landlord's receipt of (i) third-party invoices for costs incurred by Tenant in constructing the Tenant Work; (ii)

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evidence that Tenant has paid the invoices for such costs; and (iii) final lien waivers from any contractor or supplier who has constructed or supplied materials for the Tenant Work. If the costs incurred by Tenant in constructing the Tenant Work exceed the Reimbursement Allowance, then Tenant shall pay all such excess costs and Tenant agrees to keep the Premises and the Project free from any liens arising out of the non-payment of such costs.

(C) All installations and improvements now or hereafter placed in the Premises other than building standard improvements shall be for Tenant's account and at Tenant's cost. Tenant shall pay ad valorem taxes and increased insurance thereon or attributable thereto, which cost shall be payable by Tenant to Landlord as additional Rent within 30 days after receipt of an invoice therefor. Tenant's failure to pay such cost shall constitute an event of default under the Lease.

3. **ADA Compliance**. Tenant shall, at its expense, be responsible for ADA compliance in the Premises, including restrooms on any floor now or hereafter leased or occupied in its entirety by Tenant, its affiliates or transferees. Landlord shall not be responsible for determining whether Tenant is a public accommodation under ADA or whether the Approved Construction Documents comply with ADA requirements. Such determinations, if desired by Tenant, shall be the sole responsibility of Tenant. Landlord's approval of the Approved Construction Documents shall not be deemed a statement of compliance with applicable Laws, nor of the accuracy, adequacy, appropriateness, functionality or quality of the improvements to be made according to the Approved Construction Documents.

4. **Landlord's Oversight and Coordination**. Construction of the Tenant Work shall be subject to oversight and coordination by Landlord, but such oversight and coordination shall not subject Landlord to any liability to Tenant. Tenant's contractors or any other person. Landlord has the right to inspect construction of the Tenant Work from time to time.

5. **Assumption of Risk and Waiver**. Tenant hereby assumes any and all risks involved with respect to the Tenant Work and hereby releases and discharges all Landlord parties from any and all liability or loss, damage or injury suffered or incurred by Tenant or third parties in any way arising out of or in connection with the Tenant Work.

FOURTH AMENDMENT TO LEASE AGREEMENT

THIS FOURTH AMENDMENT TO LEASE AGREEMENT (this "***Amendment***") is entered into between **DURHAM KTP TECH 4, LLC**, a Delaware limited liability company ("***Landlord***"), and **LIQUIDIA TECHNOLOGIES, INC**., a Delaware corporation ("***Tenant***"), with reference to the following:

A. GRE Keystone Technology Park One LLC (predecessor-in-interest to Landlord) ("GRE") and Tenant entered into that certain Lease Agreement dated June 29, 2007, as amended by that certain Lease Modification Agreement No. 1 dated January 12, 2009, that certain Lease Modification Agreement No. 2 dated December 17, 2010, and that certain Third Amendment to Lease Agreement dated June 25, 2014 (as amended, the "Lease"), covering approximately 36,831 rentable square feet known as Suite 100 on the first floor (the "Premises") of Keystone Technology Park Building IV, 419 Davis Drive, Durham, North Carolina (the "Building").

B. GRE assigned its interest in the Lease to LCFRE Keystone Technology Park, L.P, which subsequently assigned its interest in the Lease to Landlord.

C. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **Second Extension Period**. The Term of the Lease is extended for a period of approximately 60 months (the "**Second Extension Period**") commencing on November 1, 2017, and expiring on October 31, 2022. Tenant acknowledges that it has no remaining options to extend the Term under the Lease except as provided in Section 5 below. All other renewal rights and options are hereby deleted and of no further force or effect.

2. **Base Rent**. Commencing on November 1, 2017 and continuing through the Second Extension Period, Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent the amounts set forth in the following rent schedule, plus any applicable tax thereon:

FROM	THROUGH	RATE	ANNUAL BASE RENT
November 1, 2017	October 31, 2018	$ 15.25	$ 561,672.72
November 1, 2018	October 31, 2019	$ 15.71	$ 578,615.04
November 1, 2019	October 31,2020	$ 16.18	$ 595,925.64
November 1, 2020	October 31, 2021	$ 16.66	$ 613,604.52
November 1, 2021	October 31, 2022	$ 17.16	$ 632,019.96

3. **Additional Rent**. Tenant shall continue to pay Tenant's Proportionate Share of Expenses as set forth in **Section 4** of the Lease.

4. **Condition of Premises**. Tenant accepts the Premises in its "as-is" condition AND CONFIGURATION, AND WITHOUT ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, BY LANDLORD REGARDING THE PREMISES AND THE BUILDING. TENANT HEREBY AGREES THAT THE PREMISES ARE IN GOOD ORDER AND SATISFACTORY CONDITION. However, any necessary construction of leasehold improvements shall be accomplished and the cost of such construction shall be paid in accordance with the "Work Letter" between Landlord and Tenant attached to this Amendment as Exhibit A.

5. **Option Term.**

(a) **Option Right**. Landlord hereby grants to the originally named Tenant herein ("***Original Tenant***") one (1) option to extend the Lease Term for a period of five (5) years (the "***Option Term***"), which option shall be irrevocably exercised only by written notice delivered by Tenant to Landlord not more than fifteen (15) months nor

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less than twelve (12) months prior to the expiration of the Second Extension Period, provided that the following conditions (the "***Option Conditions***") are satisfied: (i) as of the date of delivery of such notice, Tenant is not in default under the Lease, after the expiration of any applicable notice and cure period; (ii) as of the end of the Second Extension Period, Tenant is not in default under the Lease, after the expiration of any applicable notice and cure period; (iii) Tenant has not previously been in default under the Lease, after the expiration of any applicable notice and cure period, more than twice; and (iv) the Lease then remains in full force and effect and Original Tenant or an Affiliate (as such term is defined in the Lease) with a net worth equal to or greater than that of Original Tenant occupies the entire Premises at the time the option to extend is exercised and as of the commencement of the Option Term. Landlord may, at Landlord's option, exercised in Landlord's sole and absolute discretion, waive any of the Option Conditions in which case the option, if otherwise properly exercised by Tenant, shall remain in full force and effect. Upon the proper exercise of such option to extend, and provided that Tenant satisfies all of the Option Conditions (except those, if any, which are waived by Landlord), the Lease Term, as it applies to the Premises, shall be extended for a period of five (5) years. The rights contained in this Section 5 shall be personal to Original Tenant, and may be exercised by Original Tenant (and not by any assignee, sublessee or other transferee of Tenant's interest in the Lease).

(b) **Option Rent**. The annual Rent payable by Tenant during the Option Term (the "***Option Rent***") shall be equal to the "Fair Rental Value," as that term is defined below, for the Premises as of the commencement date of the Option Term. The "***Fair Rental Value***" as used in this Section 5, shall be equal to the annual rent per rentable square foot (including additional rent and considering any "base year" or "expense stop" applicable thereto), including all escalations, at which tenants (pursuant to leases consummated within the twelve (12) month period preceding the first day of the Option

Term), are leasing non-sublease, non-encumbered, non-equity space which is not significantly greater or smaller in size than the subject space, for a comparable lease term, in an arm's length transaction, which comparable space is located in the "Comparable Buildings," as that term is defined in this Section 5, below (transactions satisfying the foregoing criteria shall be known as the "***Comparable Transactions***"), taking into consideration the following concessions (the "***Concessions***")', (a) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; (b) tenant improvements or allowances provided or to be provided for such comparable space, and taking into account the value, if any, of the existing improvements in the subject space, such value to be based upon the age, condition, design, quality of finishes and layout of the improvements and the extent to which the same can be utilized by a general office user other than Tenant; and (c) other reasonable monetary concessions being granted such tenants in connection with such comparable space; provided, however, that in calculating the Fair Rental Value, no consideration shall be given to (i) the fact that Landlord is or is not required to pay a real estate brokerage commission in connection with Tenant's exercise of its right to extend the Lease Term, or the fact that landlords are or are not paying real estate brokerage commissions in connection with such comparable space, and (ii) any period of rental abatement, if any, granted to tenants in comparable transactions in connection with the design, permitting and construction of tenant improvements in such comparable spaces. The Concessions (A) shall be reflected in the effective rental rate (which effective rental rate shall take into consideration the total dollar value of such Concessions as amortized on a straight-line basis over the applicable term of the Comparable Transaction (in which case such Concessions evidenced in the effective rental rate shall not be granted to Tenant)) payable by Tenant, or (B) at Landlord's election, all such Concessions shall be granted to Tenant in kind. The term "***Comparable Buildings***" shall mean the Building and those other class A life sciences buildings which are comparable to the Building in terms of age (based upon the date of completion of construction or major renovation of to the building), quality of construction, level of services and amenities, size and appearance, and are located in Durham, North Carolina and the surrounding commercial area.

(c) **Determination of Option Rent**. In the event Tenant timely and appropriately exercises an option to extend the Lease Term, Landlord shall notify Tenant of Landlord's determination of the Option Rent on or before the Lease Expiration Date. If Tenant, on or before the date which is ten (10) days following the date upon which Tenant receives Landlord's determination of the Option Rent, in good faith objects to Landlord's determination of the Option Rent, then Landlord and Tenant shall attempt to agree upon the Option Rent using their best good-faith efforts. If Landlord and Tenant fail to reach agreement within ten (10) days following Tenant's objection to the Option Rent (the "***Outside Agreement Date***"), then each party shall make a separate determination of the Option Rent, as the case may be, within five (5) days, and such determinations shall be submitted to arbitration in accordance with the provisions below. If Tenant fails to object to Landlord's determination of the Option Rent

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within the time period set forth herein, then Tenant shall be deemed to have objected to Landlord's determination of Option Rent.

(i) Landlord and Tenant shall each appoint one arbitrator who shall be, at the option of the appointing party, a real estate broker, appraiser or attorney who shall have been active over the five (5) year period ending on the date of such appointment in the leasing or appraisal, as the case may be, of other class A life sciences buildings located in the Durham, North Carolina market area. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted Option Rent is the closest to the actual Option Rent, taking into account the requirements above, as determined by the arbitrators. Each such arbitrator shall be appointed within fifteen (15) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions. The arbitrators so selected by Landlord and Tenant shall be deemed "***Advocate Arbitrators***."

(ii) The two (2) Advocate Arbitrators so appointed shall be specifically required pursuant to an engagement letter within ten (10) days of the date of the appointment of the last appointed Advocate Arbitrator to agree upon and appoint a third arbitrator ("***Neutral Arbitrator***") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators, except that neither the Landlord or Tenant or either parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel.

(iii) The three arbitrators shall, within thirty (30) days of the appointment of the Neutral Arbitrator, reach a decision as to whether the parties shall use Landlord's or Tenant's submitted Option Rent, and shall notify Landlord and Tenant thereof.

(iv) The decision of the majority of the three arbitrators shall be binding upon Landlord and Tenant.

(v) If either Landlord or Tenant fails to appoint an Advocate Arbitrator within fifteen (15) days after the Outside Agreement Date, then either party may petition the presiding judge of the Superior Court of Durham County to appoint such Advocate Arbitrator subject to the criteria above, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such Advocate Arbitrator.

(vi) If the two (2) Advocate Arbitrators fail to agree upon and appoint the Neutral Arbitrator, then either party may petition the presiding judge of the Superior Court of Durham County to appoint the Neutral Arbitrator, subject to criteria above, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such arbitrator.

(vii) The cost of the arbitration shall be paid by Landlord and Tenant equally.

(viii) In the event that the Option Rent shall not have been determined pursuant to the terms hereof prior to the commencement of the Option Term, Tenant shall be required to pay the Option Rent initially provided by Landlord to Tenant, and upon the final determination of the Option Rent, the payments made by Tenant shall be reconciled with the actual amounts of Option Rent due, and the appropriate party shall make any corresponding payment to the other party,

6. **Broker**. Each party represents and warrants to the other that it has not been represented by any broker or agent in connection with the execution of this Amendment, other than Thalhimer Raleigh LLC as Landlord's agent, and Thalhimer Raleigh LLC, as Tenant's agent Each party shall indemnify the other and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims (including costs of defense and investigation) relating to its breach of the foregoing representation.

7. **OFAC List Representation**. Tenant hereby represents and warrants to Landlord that neither Tenant nor, to its knowledge, any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or

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person: (a) that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order 13224 issued on September 24, 2001 ("***EO 13224***"); (b) whose name appears on the United States Treasury Department's Office of Foreign Assets Control ("***OFAC***") most current list of "Specifically Designated National and Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to, the OFAC website, http:www.treas.gov/ofac/tllsdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

8. **Miscellaneous**. This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns. This Amendment may be executed in one or more counterparts, including by facsimile or electronic copy.

[***Signatures to follow***]

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

DURHAM KTP TECH 4, LLC,
a Delaware limited liability company

By: /s/ Jamison N. Peschel
Name: Jamison N. Peschel
Title: Authorized Signatory

Effective Date: Nov. 17,2015

TENANT:

LIQUIDIA TECHNOLOGIES, INC.,
a Delaware corporation

By: /s/ Timothy Albury
Name: Timothy Albury
Title: CFO

EXHIBIT A

TENANT WORK LETTER

This Tenant Work Letter is attached as an Exhibit to that certain Fourth Amendment to Lease Agreement (the "*Amendment*") between DURHAM KTP TECH 4, LLC, as Landlord, and LIQUIDIA TECHNOLOGIES, INC., as Tenant, that amends that certain Lease Agreement dated June 29, 2007 (as amended, the "*Lease*") and relating to the lease by Landlord to Tenant of that certain Premises. Unless otherwise specified, all capitalized terms used in this Work Letter shall have the same meanings as in the Lease as amended by the Amendment.

1. Construction. Tenant agrees to construct leasehold improvements (the "*Tenant Work*") in a good and workmanlike manner in and upon the Premises, at Tenant's sole cost and expense, in accordance with the following provisions. Prior to construction, Tenant shall submit to Landlord for Landlord's approval complete plans and specifications for the construction of the Tenant Work ("*Tenant's Plans*"). Within 10 business days after receipt of Tenant's Plans, Landlord shall review and either approve or disapprove Tenant's Plans. If Landlord disapproves Tenant's Plans, or any portion thereof, Landlord shall notify Tenant thereof and of the revisions Landlord requires before Landlord will approve Tenant's Plans. Within 10 business days after Landlord's notice, Tenant shall submit to Landlord, for Landlord's review and approval, plans and specifications incorporating the required revisions. The final plans and specifications approved by Landlord are hereinafter referred to as the "*Approved Construction Documents*". Tenant will employ experienced, licensed contractors, architects, engineers and other consultants, approved by Landlord, to construct the Tenant Work and will require in the applicable contracts that such parties (a) carry insurance in such amounts and types of coverages as are reasonably required by Landlord, (b) list the Landlord and its partners as additional insureds, and (c) design and construct the Tenant Work in a good and workmanlike manner and in compliance with all laws. Unless otherwise agreed to in writing by Landlord and Tenant, all work involved in the construction and installation of the Tenant Work shall be carried out by Tenant's contractor under the sole direction of Tenant, in compliance with all Building rules and regulations and in such a manner so as not to unreasonably interfere with or disturb the operations, business, use and enjoyment of the Project by other tenants in the Building or the structural calculations for imposed loads. Tenant shall obtain from its contractors and provide to Landlord a list of all subcontractors providing labor or materials in connection with any portion of the Tenant Work prior to commencement of the Tenant Work. Tenant warrants that the design, construction and installation of the Tenant Work shall conform to the requirements of all applicable laws, including building, plumbing and electrical codes and parameters, and the requirements of any authority having jurisdiction over, or with respect to, such Tenant Work.

2. Costs. Subject to the terms and conditions of this Section 2, Landlord will provide Tenant with an allowance (the "*Reimbursement Allowance*") to be applied towards the cost of constructing the Tenant Work.

(A) Landlord's obligation to reimburse Tenant for Tenant's construction of the Tenant Work shall be: (i) limited to actual costs incurred by Tenant in its construction of the Tenant Work; (ii) limited to an amount up to, but not exceeding, $10.00 multiplied by the rentable square footage of the Premises; and (iii) conditioned upon Landlord's receipt of written notice (which notice shall be accompanied by invoices and documentation set forth below) from Tenant that the Tenant Work has been completed and accepted by Tenant. The cost of (a) all space planning, design, consulting or review services and construction drawings, (b) extension of electrical wiring from Landlord's designated location(s) to the Premises, (c) purchasing and installing all building equipment for the Premises (including any submeters and other above building standard electrical equipment approved by Landlord), (d) required metering, re-circuiting or re-wiring for metering, equipment rental, engineering design services, consulting services, studies, construction services, cost of billing and collections, (e) materials and labor, (f) a 1% project management fee as outlined below in Section 4, payable to Landlord or its affiliates on total construction costs, and (g) an asbestos survey of the Premises if required by applicable law, shall all be included in the cost of the Tenant Work and may be paid out of the Reimbursement Allowance, to the extent sufficient funds are available for such purpose. Any reimbursement obligation of Landlord under this Work Letter shall be applied solely to the purposes specified above, as allocated, within 365 days after the Effective Date or be forfeited with no further obligation on the part of Landlord.

(B) Landlord shall pay the Reimbursement Allowance to Tenant within 45 days following Landlord's receipt of (i) third-party invoices for costs incurred by Tenant in constructing the Tenant Work; (ii) evidence that Tenant has paid

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the invoices for such costs; and (iii) final lien waivers from any contractor or supplier who has constructed or supplied materials for the Tenant Work. If the costs incurred by Tenant in constructing the Tenant Work exceed the Reimbursement Allowance, then Tenant shall pay all such excess costs and Tenant agrees to keep the Premises and the Project free from any liens arising out of the non-payment of such costs,

(C) All installations and improvements now or hereafter placed in the Premises other than building standard improvements shall be for Tenant's account and at Tenant's cost. Tenant shall pay ad valorem taxes and increased insurance thereon or attributable thereto, which cost shall be payable by Tenant to Landlord as additional Rent within 30 days after receipt of an invoice therefor. Tenant's failure to pay such cost shall constitute an event of default under the Lease.

3. ADA Compliance. Landlord shall not be responsible for determining whether Tenant is a public accommodation under ADA or whether the Approved Construction Documents comply with ADA requirements. Such determinations, if desired by Tenant, shall be the sole responsibility of Tenant. Landlord's approval of the Approved Construction Documents shall not be deemed a statement of compliance with applicable Laws, nor of the accuracy, adequacy, appropriateness, functionality or quality of the improvements to be made according to the Approved Construction Documents.

4. Landlord's Oversight and Coordination. Construction of the Tenant Work shall be subject to oversight and coordination by Landlord, but such oversight and coordination shall not subject Landlord to any liability to Tenant, Tenant's contractors or any other person. Landlord has the right to inspect construction of the Tenant Work from time to time. A 1% project management fee shall be payable to Landlord or its affiliates by Tenant on total construction costs which amount Landlord may pay from the available Reimbursement Allowance.

5. Assumption of Risk and Waiver. Tenant hereby assumes any and all risks involved with respect to the Tenant Work and hereby releases and discharges all Landlord parties from any and all liability or loss, damage or injury suffered or incurred by Tenant or third parties in any way arising out of or in connection with the Tenant Work.

FIFTH AMENDMENT TO LEASE AGREEMENT

TIDS FIFTH AMENDMENT TO LEASE AGREEMENT (this ***"Amendment")*** is entered into between **DURHAM KTP TECH 4, LLC,** a Delaware limited liability company ***("Landlord"),*** and **LIQUIDIA TECHNOLOGIES, INC.,** a Delaware corporation ***("Tenant"),*** with reference to the following:

A. GRE Keystone Technology Park One LLC (predecessor-in-interest to Landlord) ***("GRE")*** and Tenant entered into that certain Lease Agreement dated June 29, 2007, as amended by that certain Lease Modification Agreement No. I dated January 12, 2009, that certain Lease Modification Agreement No. 2 dated December 17, 2010, that certain Third Amendment to Lease Agreement dated June 25, 2014, and that certain Fourth Amendment to Lease Agreement dated November 17, 2015 (collectively, the ***"Lease"),*** covering approximately 36,831 rentable square feet known as Suite 100 on the first floor (the ***"Premises")*** of Keystone Technology Park Building IV, 419 Davis Drive, Durham, North Carolina (the ***"Building").***

B. GRE assigned its interest in the Lease to LCFRE Keystone Technology Park, L.P. which subsequently assigned its interest in the Lease to Landlord.

C. Landlord and Tenant now desire to further amend the Lease as set forth below. Unless otherwise expressly provided in this Amendment, capitalized terms used in this Amendment shall have the same meanings as in the Lease.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. **Second Extension Period.** Under the Fourth Amendment the parties had agreed to extend the Term of the Lease until October 31, 2022. The parties now agree to a further extension of the Term as stated herein. The "Second Extension Period" as defined in the Fourth Amendment is hereby redefined to be a period of approximately 108 months (the ***"Second Extension Period)*** commencing on November 1, 2017, and expiring on October 31, 2026. Tenant acknowledges that it has no remaining options to extend the Term under the Lease except as provided in Section 5 of the Fourth Amendment. All other renewal rights and options are hereby deleted and of no further force or effect.

2. **Base Rent.** The Base Rent table in the Fourth Amendment is hereby deleted for all purposes. Commencing on November 1, 2017 and continuing through the Second Extension Period, Tenant shall, at the time and in the manner provided in the Lease, pay to Landlord as Base Rent the amounts set forth in the following rent schedule, plus any applicable tax thereon:

FROM	THROUGH	RATE	MONTHLY BASE RENT	ANNUAL BASE RENT
November 1, 2017	October 31, 2018	$ 24.25	$ 74,429.31	$ 893,151.72
November 1, 2018	October 31, 2019	$ 24.98	$ 76,669.87	$ 920,038.44
November 1, 2019	October 31, 2020	$ 25.73	$ 78,971.80	$ 947,661.60
November 1, 2020	October 31, 2021	$ 26.50	$ 81,335.13	$ 976,021.56
November 1, 2021	October 31, 2022	$ 27.29	$ 83,759.83	$ 1,005,117.96
November 1, 2022	October 31, 2023	$ 28.11	$ 86,276.62	$ 1,035,319.44
November 1, 2023	October 31, 2024	$ 28.96	$ 88,885.48	$ 1,066,625.76
November I, 2024	October 31, 2025	$ 29.82	$ 91,525.04	$ 1,098,300.48
November I, 2025	October 31, 2026	$ 30.72	$ 94,287.36	$ 1,131,448.32

3. **Additional Rent.** Tenant shall continue to pay Tenant's Proportionate Share of Expenses as set forth in **Section 4** of the Lease.

4. **Condition of Premises.** **TENANT ACCEPTS THE PREMISES IN ITS "AS-IS" CONDITION AND CONFIGURATION, AND WITHOUT ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, BY LANDLORD REGARDING THE PREMISES AND THE BUILDING. TENANT HEREBY AGREES THAT THE PREMISES ARE IN GOOD ORDER AND SATISFACTORY CONDITION.** However, any necessary construction of leasehold improvements shall be accomplished and the cost of such construction shall be paid in accordance with the "Work Letter" between Landlord and Tenant attached to this Amendment as Exhibit A.

5. **Additional Security Deposit.** Within ten (I 0) days after the Fina1 Financing Date, as defined below, so long as this Amendment is not terminated in accordance with Section 6 below Tenant shall post an additional $261,717.24 (the ***"Supplemental Security Deposit')*** to the already existing Security Deposit of $36,000 under the Lease and the total Security Deposit shall be equal to $297,717.24 So long as Tenant is not in default under the Lease beyond applicable notice and cure periods, the Security Deposit shall be reduced by $74,429.31 on the date Tenant completes the initial public offering for the stock of Tenant and provides proof of such completed transaction to Landlord (the ***"IPO Date")***. Additionally, so long as Tenant is not in default under the Lease beyond applicable notice and cure periods, the Security Deposit shall be reduced by an additional $74,429.31 on the date which is three (3) years after the IPO Date so long as Tenant's financial position is equal to or greater than Tenant's financial position as of the IPO Date. For clarity, in both instances above with respect to Security Deposit reduction, Landlord shall return the said amounts to Tenant within thirty (30) days of Tenant providing Landlord with sufficient written notice of satisfaction of said condition.

Landlord shall not be required to fund any portion of the Reimbursement Allowance, as defined in Exhibit A, until Tenant has posted the Supplemental Security Deposit with Landlord.

6. **Contingency.** This Amendment is contingent upon Tenant's receipt of financing from its Bridge financing (the ***"Financing").*** In the event Tenant does not finalize the Financing on or before January 31, 2017 (the ***"Final Financing Date")*** then either Tenant or Landlord may terminate this Amendment upon written notice to Landlord which notice must be given to the other party on or before February 10, 2017. If neither party provides such notice by the required date this Amendment shall continue in full force and effect and this Section 6 shall be deemed deleted from this Amendment. In addition to any other limitations on funding the Reimbursement Allowance, Landlord shall not be required to provide any of the Reimbursement Allowance to Tenant until Tenant obtains the Financing or until this Section 6 is deemed deleted from this Amendment.

7. **Broker.** Each party represents and warrants to the other that it has not been represented by any broker or agent in connection with the execution of this Amendment, other than Longfellow Brokerage Services NC, LLC as Landlord's agent, and Foundry Commercial, as Tenant's agent Each party shall indemnify the other and their respective partners, members, affiliates and subsidiaries, and all of their respective officers, directors, shareholders, employees, servants, partners, members, representatives, insurers and agents from and against all claims

(including costs of defense and investigation) relating to its breach of the foregoing representation.

8. **OFAC List Representation.** Tenant hereby represents and warrants to Landlord that neither Tenant nor, to its knowledge, any of its officers, directors, shareholders, partners, members or affiliates is or will be an entity or person: (a) that is listed **in** the annex to, or is otherwise subject to tbe provisions of, Executive Order 13224 issued on September 24, 2001 ***("EO 13224");*** (b) whose name appears on the United States Treasury Department's Office of Foreign Assets Control ***("OFAC')*** most current list of "Specifically Designated National and Blocked Persons" (which list may be published from time to time in various mediums including, but not limited to, the OFAC website, http:www.treas.gov/ofac/tllsdn.pdf); (c) who commits, threatens to commit or supports "terrorism," as that term is defined in EO 13224; or (d) who is otherwise affiliated with any entity or person listed above.

9. **Miscellaneous.** This Amendment shall become effective only upon full execution and delivery of this Amendment by Landlord and Tenant. This Amendment contains the parties' entire agreement regarding the subject matter covered by this Amendment, and supersedes all prior correspondence, negotiations, and agreements, if any, whether oral or written, between the parties concerning such subject matter. There are no contemporaneous oral agreements, and there are no representations or warranties between the parties not contained in this Amendment. Except as modified by this Amendment, the terms and provisions of the Lease shall remain in full force and effect, and the Lease, as modified by this Amendment, shall be binding upon and shall inure to the benefit of the parties hereto, their successors and permitted assigns. This Amendment may be executed in one or more counterparts, including by facsimile or electronic copy.

[Signatures to follow]

LANDLORD AND TENANT enter into this Amendment as of the Effective Date specified below Landlord's signature.

LANDLORD:

DURHAM KTP TECH 7, LLC,
a Delaware limited liability company

By: /s/ Jamison N. Peschel
Name: Jamison N. Peschel
Title: Authorized Signatory
Effective Date: June 9, 2017

TENANT:

LIQUIDIA TECHNOLOGIES, INC.,
a Delaware corporation

By: /s/ Shawn Glidden
Name: Shawn Glidden
Title: VP Legal Affairs and Secretary
Effective Date: June 9, 2017

EXHIBIT A

TENANT WORK LETTER

This Tenant Work Letter is attached as an Exhibit to that certain Fifth Amendment to Lease Agreement (the *"Amendment'?* between DURHAM KTP TECH 4, LLC, as Landlord, and LIQUIDIA TECHNOLOGIES, INC., as Tenant, that amends that certain Lease Agreement dated June 29, 2007 (as amended, the *"Lease'?* and relating to the lease by Landlord to Tenant of that certain Premises. Unless otherwise specified, all capitalized terms used in this Work Letter shall have the same meanings as in the Lease as amended by the Amendment.

1. Construction. Tenant agrees to construct leasehold improvements (the *"Tenant Work")* in a good and workmanlike manner in and upon the Premises, at Tenant's sole cost and expense, in accordance with the following provisions. Prior to construction, Tenant shall submit to Landlord for Landlord's approval complete plans and specifications for the construction of the Tenant Work *("Tenant's Plans").* Within 10 business days after receipt of Tenant's Plans, Landlord shall review and either approve or disapprove Tenant's Plans. If Landlord disapproves Tenant's Plans, or any portion thereof, Landlord shall notify Tenant thereof and of the revisions Landlord requires before Landlord will approve Tenant's Plans. Within 10 business days after Landlord's notice, Tenant shall submit to Landlord, for Landlord 's review and approval, plans and specifications incorporating the required revisions. The final plans and specifications approved by Landlord are hereinafter referred to as the *"Approved Construction Documents".* Tenant will employ experienced, licensed contractors, architects, engineers and other consultants, approved by Landlord, to construct the Tenant Work and will require in the applicable contracts that such parties (a) carry insurance in such amounts and types of coverages as are reasonably required by Landlord, (b) list the Landlord and its partners as additional insureds, and (c) design and construct the Tenant Work in a good and workmanlike manner and in compliance with all laws. Unless otherwise agreed to in writing by Landlord and Tenant, all work involved in the construction and installation of the Tenant Work shall be carried out by Tenant's contractor under the sole direction of Tenant, in compliance with all Building rules and regulations and in such a manner so as not to unreasonably interfere with or disturb the operations, business, use and enjoyment of the Project by other tenants in the Building or the structural calculations for imposed loads. Tenant shall obtain from its contractors and provide to Landlord a list of all subcontractors providing labor or materials in connection with any portion of the Tenant Work prior to commencement of the Tenant Work. Tenant warrants that the design, construction and installation of the Tenant Work shall conform to the requirements of all applicable laws, including building, plumbing and electrical codes and parameters, and the requirements of any authority having jurisdiction over, or with respect to, such Tenant Work.

2. Costs. Subject to the terms and conditions of this Section 2, Landlord will provide Tenant with an allowance (the *"Reimbursement Allowance")* to be applied towards the cost of constructing the Tenant Work.

(A) Landlord's obligation to reimburse Tenant for Tenant's construction of the Tenant Work shall be: (i) limited to actual costs incurred by Tenant in its construction of the Tenant Work; (ii) limited to an amount up to, but not exceeding, $54.30 multiplied by the rentable square footage of the Premises (for clarification purposes the amount listed in this subsection ii is in addition to the $10.00 per square foot provided to Tenant under the Fourth Amendment which amount has been fully utilized by Tenant); and

(iii) conditioned upon Landlord's receipt of written notice (which notice shall be accompanied by invoices and documentation set forth below) from Tenant that the Tenant Work has been completed and accepted by Tenant. The cost of (a) all space planning, design, consulting or review services and construction drawings, (b) extension of electrical wiring from Landlord's designated location(s) to the Premises, (c) purchasing and installing all building equipment for the Premises (including any submeters and other above building standard electrical equipment approved by Landlord), (d) required metering, re-circuiting or re-wiring for metering, equipment rental, engineering design services, consulting services, studies,

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construction services, cost of billing and collections, (e) materials and labor, (f) a 1% project management fee as outlined below in Section 4, payable to Landlord or its affiliates on total construction costs, and (g) an asbestos survey of the Premises if required by applicable law, shall all be included in the cost of the Tenant Work and may be paid out of the Reimbursement Allowance, to the extent sufficient funds are available for such purpose. Any reimbursement obligation of Landlord under this Work Letter shall be applied solely to the purposes specified above, as allocated, within 365 days after the Effective Date or be forfeited with no further obligation on the part of Landlord.

(B) Landlord shall pay the Reimbursement Allowance to Tenant within 45 days following Landlord's receipt of (i) third-party invoices for costs incurred by Tenant in constructing the Tenant Work; (ii) evidence that Tenant has paid the invoices for such costs; and (iii) final lien waivers from any contractor or supplier who has constructed or supplied materials for the Tenant Work. If the costs incurred by Tenant in constructing the Tenant Work exceed the Reimbursement Allowance, then Tenant shall pay all such excess costs and Tenant agrees to keep the Premises and the Project free from any liens arising out of the non-payment of such costs.

(C) All installations and improvements now or hereafter placed in the Premises other than building standard improvements shall be for Tenant's account and at Tenant's cost. Tenant shall pay ad valorem taxes and increased insurance thereon or attributable thereto, which cost shall be payable by Tenant to Landlord as additional Rent within 30 days after receipt of an invoice therefor. Tenant's failure to pay such cost shall constitute an event of default under the Lease.

3. ADA Compliance. Landlord shall not be responsible for determining whether Tenant is a public accommodation under ADA or whether the Approved Construction Documents comply with ADA requirements. Such determinations, if desired by Tenant, shall be the sole responsibility of Tenant. Landlord's approval of the Approved Construction Documents shall not be deemed a statement of compliance with applicable Laws, nor of the accuracy, adequacy, appropriateness, functionality or quality of the improvements to be made according to the Approved Construction Documents.

4. Landlord's Oversight and Coordination. Construction of the Tenant Work shall be subject to oversight and coordination by Landlord, but such oversight and coordination shall not subject Landlord to any liability to Tenant, Tenant's contractors or any other person. Landlord has the right to inspect construction of the Tenant Work from time to time. A one percent (1%) project management fee shall be payable to Landlord or its affiliates by Tenant on total construction costs which amount Landlord may pay from the available Reimbursement Allowance.

5. Assumption of Risk and Waiver. Tenant hereby assumes any and all risks involved with respect to the Tenant Work and hereby releases and discharges all Landlord parties from any and all liability or loss, damage or injury suffered or incurred by Tenant or third parties in any way arising out of or in connection with the Tenant Work.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the use in this Registration Statement on Form S-1 of Liquidia Technologies, Inc. of our report dated March 14, 2018 relating to the financial statements of Liquidia Technologies, Inc., which appears in this Registration Statement. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
Raleigh, North Carolina
June 28, 2018

Exhibit 23.3

Consent of Decision Resources Group

We hereby consent to (1) the use of and references to our name in the prospectus included in the registration statement on Form S-1 of Liquidia Technologies, Inc. (the "Company") and any amendments thereto (the "Registration Statement"), including, but not limited to, under the "Market and Industry Data," "Prospectus Summary," and "Business" sections, and (2) the filing of this consent as an exhibit to the Registration Statement by the Company for the use of our data and information cited in the above-mentioned sections with data reference points outlined and described expressly within Schedule I hereto only. Any data or information not appearing within Schedule I hereto is not authorized for use and does not form part of this consent exhibit.

The data and information used in the Registration Statement, including, but not limited to, under the "Market and Industry Data," "Prospectus Summary," and "Business" sections and described on Schedule I hereto, are obtained from our materials titled "Research Stream — Disease Landscape and Forecast — All Therapy Areas (Inc. Niche & Rare) (DLSFTA0003)".

By: /s/ Wade B. Sampson
Name: Wade B. Sampson
Title: Director, Contracts
DR/Decision Resources, LLC

June 28, 2018

Schedule I

The information listed below and appearing in the "Market and Industry Data" section of the prospectus:

> Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate is based on reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources as well as our own internal estimates and research. Decision Resources Group is the primary source for the market data included in this prospectus and we compensated them for use of market data. Although we believe the data from these third party sources is reliable, we have not independently verified any third party information. In addition, projections, assumptions and estimates of the future performance of the industry in which we operate and our future performance are necessarily subject to uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

The information listed below and appearing in the "Prospectus Summary" section of the prospectus:

> in 2016 more than 50% of patients with PAH in the United States were prescribed treprostinil across its three routes of administration (oral, inhaled and parenteral infusion), generating revenue that represented about one-third of the approximately $3.7 billion U.S. market for PAH drug therapies
>
> Tyvaso® (treprostinil, inhaled solution), marketed by United Therapeutics Corporation in the United States, is the standard of care among the inhaled therapies, with more than 80% of inhaled prostacyclin sales in the United States.

The information listed below and appearing in the "Business" section of the prospectus:

> in 2016 more than 50% of patients with PAH in the United States were prescribed treprostinil across its three routes of administration (oral, inhaled and parenteral infusion), generating revenue that represented about one-third of the approximately $3.7 billion U.S. market for PAH drug therapies
>
> Tyvaso® (treprostinil, inhaled solution), marketed by United Therapeutics Corporation in the United States, is the standard of care among the inhaled therapies, with more than 80% of inhaled prostacyclin sales in the United States.
>
> Prostacyclin deficiency in the lung is a central dysfunction in PAH, but can be supplemented with prostacyclin analogs.
>
> Nitric oxide deficiency can be treated with phosphodiesterase 5, or PDE5, inhibitors, which target a specific enzyme, increasing vasodilation.
>
> Endothelin overexpression in PAH patients causes vasoconstriction of pulmonary vasculature, but can be treated with endothelin receptor antagonists, or ERAs.
>
> Many physicians start their PAH patients on oral PDE5 inhibitors, oral ERAs or both. Drugs targeted to the prostacyclin pathway are usually added to these oral therapies, but can be used alone.

> Decision Resources Group estimated that sales for all major PAH drugs in 2016 were more than $6.0 billion in the United States, France, Germany, Italy, Japan and the United Kingdom.
>
> In the United States, products approved to treat PAH through the prostacyclin deficient pathway generated approximately $1.7 billion in sales in 2016, of which the prostacyclin analog treprostinil generated the majority from products formulated for continuous infusion, inhalation using a nebulizer and oral delivery.
>
> The combined population of PAH patients in the 5EU and Japan was estimated to be more than 25,000 patients in 2016.
>
> Decision Resources Group estimated that fewer than 10% of PAH patients in the United Kingdom, Germany, France, Italy and Spain, which we collectively refer to herein as the 5EU, use Ventavis.
>
> By 2025, the diagnosed prevalence of all WHO Group III sub types is expected to grow to over 250,000 patients in the United States, 5EU and Japan.
>
> WHO Group IV includes patients diagnosed with chronic thromboembolic pulmonary hypertension, or CTEPH. While considered underdiagnosed and undertreated, the current estimates for diagnosed prevalence of CTEPH in 2015 are between 2,000 and 6,500 patients in the United States and more than 10,000 patients in the 5EU and Japan.
>
> Decision Resources Group reported that more than 80% of PAH patients on inhaled therapy in the United States used Tyvaso in 2016.
>
> As reported by Decision Resources Group, net revenue in the U.S. market for PAH drug therapies in 2016 was estimated to be $3.7 billion. Of such amount, $2.0 billion was generated from patients in NYHA Class III, $1.2 billion was generated from patients in NYHA Class II and an aggregate of $0.5 billion was generated from patients in NYHA Classes I and IV.
>
> The U.S. market for inhaled treatments through the prostacyclin deficient pathway was more than $450 million in 2016, of which Tyvaso accounted for more than 80%.
>
> However, prostacyclin analogs may have utility in the treatment of PH in other categories, as suggested by current off label use in WHO Group III, which includes individuals with pulmonary hypertension secondary to lung diseases or hypoxemia, and WHO Group IV, which includes individuals with chronic thromboembolic pulmonary hypertension.
>
> Continuously infused prostacyclins include epoprostenol, marketed by multiple companies as generic and branded products, and treprostinil, marketed as Remodulin by United Therapeutics Corporation. These options are considered to offer the greatest efficacy and are usually prescribed to patients later in the disease.

Exhibit 23.4

Consent of CapVal-American Business Appraisers, LLC

We hereby consent to (i) the filing of this consent as an exhibit to the Form S-1 of Liquidia Technologies, Inc. (the "Company") and any amendments thereto (the "Registration Statement") by the Company for the use of our methodologies, conclusions and other information cited in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Notes to Financial Statements" sections with reference points outlined and described expressly within Schedule I hereto only, and (ii) the use of and reference to our name in the Registration Statement, including, but not limited to, under the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Notes to Financial Statements" sections. Any information not appearing within Schedule I hereto is not authorized for use and does not form part of this consent exhibit.

The information used in the Registration Statement, including, but not limited to, under the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Notes to Financial Statements" sections and described on Schedule I hereto, are obtained from appraisal reports provided by us to the Company.

The information utilized by the Company and provided by us was limited to an opinion of the fair value of the Company's common stock as of specific valuation dates, and the related value of stock options solely for purposes of compliance with Accounting Standards Codification Section 718. These dates differed from the dates of the Company's historical financial statements and the date of this filing. The values of the common stock and related options at the statement dates and at the respective valuation dates would be expected to be different, and the difference could be material. These reports and conclusions are not intended by us, and should not be construed by the reader, to be investment advice in any manner whatsoever.

By: /s/ Geoffrey S. Grisham, ASA, CVA
Name: Geoffrey S. Grisham, ASA, CVA
Title: Member
CapVal-American Business Appraisers, LLC

June 28, 2018

Schedule I

The information listed below and appearing in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of the prospectus:

> These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. Our common stock valuations were prepared using the hybrid method, which used market approaches and, in the November 8, 2016 and February 2, 2018 valuations, initial public offering pre-money valuation estimates provided by management, to estimate our enterprise value. The hybrid method is a probability-weighed expected return method, or PWERM, where the equity value in one or more of the scenarios is calculated using an option-pricing method, or OPM. The OPM treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceeded the value of the preferred stock liquidation preferences at the time of the liquidity event, such as a strategic sale or a merger. The PWERM is a scenario-based methodology that estimates the fair value of common stock based upon an analysis of future values for the company, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available as well as the rights of each class of stock. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate, a discount for lack of marketability is applied to each indication, and probability weighted to arrive at an indication of value for the common stock. Third-party valuations were performed at various dates by CapVal-American Business Appraisers, LLC, which resulted in valuations of our common stock of $0.35 per share as of November 8, 2015, $1.21 as of November 8, 2016, $0.55 per share as of February 2, 2018 and $0.67 per share as of March 31, 2018.

The information listed below and appearing in the "Notes to Financial Statements" section of the prospectus:

> The purchase prices were not material and were based upon prior third-party appraisals conducted by CapVal-American Business Appraisers, LLC. The valuations of Envisia common stock were for Internal Revenue Code Section 409A, or 409A, and ASC 718, *Compensation-Stock Compensation,* or ASC 718, purposes. These standards of value may not be appropriate for a market transaction, and furthermore, the dates are different and therefore such number of shares could be different for this purpose.
