As filed with the Securities and Exchange Commission on April 27, 2020

Registration No. 333-236962

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

AMENDMENT NO. 1 TO
FORM S-1
REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

Lyra Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**3841**	**84-1700838**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

480 Arsenal Way
Watertown, MA 02472
(617) 393-4600

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Maria Palasis, Ph.D.
President and Chief Executive Officer
Lyra Therapeutics, Inc.
480 Arsenal Way
Watertown, MA 02472
(617) 393-4600

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Peter N. Handrinos
Wesley C. Holmes
Latham & Watkins LLP
200 Clarendon Street
Boston, MA 02116
(617) 948-6000

Ilir Mujalovic
Shearman & Sterling LLP
599 Lexington Avenue
New York, NY 10022
(212) 848-4000

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. ☐

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. ☐

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. ☐

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. ☐

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	☐	**Accelerated filer**	☐
Non-accelerated filer	☒	**Smaller reporting company**	☒
		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)**	**Amount of Registration Fee(2)(3)**
Common Stock, $0.001 par value per share	$64,400,000	$8,360

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes the aggregate offering price of additional shares that the underwriters have the option to purchase.

(2) $7,464 of this registration fee was previously paid by the Registrant in connection with the filing of its Registration Statement on Form S-1 on March 6, 2020.

(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.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion
Preliminary Prospectus dated April 27, 2020

PROSPECTUS

3,500,000 Shares

Common Stock

This is Lyra Therapeutics, Inc.'s initial public offering. We are selling 3,500,000 shares of our common stock.

We expect the public offering price to be between $14.00 and $16.00 per share. Currently, no public market exists for the shares. After pricing of the offering, we expect that the shares will trade on The Nasdaq Global Market under the symbol "LYRA."

We are an emerging growth company under the federal securities laws and are subject to reduced public company disclosure standards. See "Prospectus Summary—Implications of Being an Emerging Growth Company."

Investing in the common stock involves risks that are described in the "Risk Factors" section beginning on page 13 of this prospectus.

	Per Share	Total
Public offering price	$	$
Underwriting discount(1)	$	$
Proceeds, before expenses, to us	$	$

(1) We refer you to "Underwriting" beginning on page 183 of this prospectus for additional information regarding underwriting compensation.

The underwriters may also exercise their option to purchase up to an additional 525,000 shares from us, at the public offering price, less the underwriting discount, for 30 days after the date 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.

The shares will be ready for delivery on or about , 2020.

Joint Book-Running Managers

BofA Securities **Jefferies** **William Blair**

Co-Manager

BTIG

The date of this prospectus is , 2020.

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Neither we nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in 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. This prospectus is an offer to sell only the shares of common stock offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

We have proprietary rights to trademarks, trade names and service marks appearing in this prospectus that are important to our business. Solely for convenience, the trademarks, trade names and service marks may appear in this prospectus without the ® and ™ symbols, but any such references are not intended to indicate, in any way, that we forgo or will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensors to these trademarks, trade names and service marks. All trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

For investors outside the United States: Neither we nor the underwriters have 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.

PROSPECTUS SUMMARY

This summary highlights, and is qualified in its entirety by, the more detailed information and financial statements included elsewhere in this prospectus. This summary does not contain all of the information that may be important to you in making your investment decision. You should read this entire prospectus carefully, especially the "Risk Factors" section beginning on page 13 and our consolidated financial statements and the related notes appearing at the end of this prospectus, before deciding to invest in our common stock.

As used in this prospectus, unless the context otherwise requires, references to "we," "us," "our" and "Lyra" refer to the consolidated operations of Lyra Therapeutics, Inc. and its subsidiary.

Overview

We are a clinical-stage therapeutics company focused on the development and commercialization of novel integrated drug and delivery solutions for the localized treatment of patients with ear, nose and throat, or ENT, diseases. Our proprietary technology platform, XTreo, is designed to precisely and consistently deliver medicines directly to the affected tissue for sustained periods with a single administration. Our initial product candidates, LYR-210 and LYR-220, are bioresorbable polymeric matrices designed to be administered in a brief, non-invasive, in-office procedure and intended to deliver up to six months of continuous drug therapy to the sinonasal passages for the treatment of chronic rhinosinusitis, or CRS. The therapeutic embedded within LYR-210 and LYR-220 is mometasone furoate, or MF, which is the active ingredient in various U.S. Food and Drug Administration, or FDA, approved drugs and has a well-established efficacy and safety profile. CRS is an inflammatory disease of the paranasal sinuses which leads to debilitating symptoms and significant morbidities and affects approximately 14 million people in the United States. We are advancing LYR-210 as a potential preferred alternative to surgery in an ongoing Phase 2 clinical trial, which we refer to as our LANTERN clinical trial, for CRS patients who have failed medical management, and, subject to the impact of the disease caused by the novel coronavirus, or COVID-19, on our business, we expect to report topline data by the end of 2020. In our Phase 1 clinical trial, LYR-210 met its primary safety endpoint, and we observed that patients generally experienced significant and rapid, clinically meaningful and durable improvement in SNOT-22 scores, an established patient symptom severity scale, through week 25, which was the end of the trial. We are also developing LYR-220 for use in CRS patients who have an enlarged nasal cavity due to sinus surgery but continue to require treatment to manage CRS symptoms, and, subject to the impact of COVID-19 on our business, we intend to initiate a proof-of-concept clinical trial for LYR-220 by the end of 2021. Beyond CRS, we believe our XTreo platform has potential applications in other disease areas, which we are actively exploring to further broaden its therapeutic potential.

Chronic Rhinosinusitis: A Prevalent Disease with High Unmet Medical Needs

CRS has been described in the literature as an "unrecognized epidemic" due to its high prevalence, its substantial impact on patient quality of life and the significant limitations of currently available treatment options. We estimate that sinusitis, which includes both CRS and acute rhinosinusitis, impacts approximately 12% of the adult population in the United States, or approximately 30 million people, making it the fifth most common condition in people under the age of 65 and more prevalent than diabetes or heart disease. Of this population, we estimate that approximately 14 million people are affected with CRS. Moreover, we estimate that approximately 8 million people are treated for CRS by physicians annually, of which approximately 4 million fail medical management every year. In the United States, over $60 billion is spent annually in direct treatment costs for sinusitis, including approximately $5 billion on sinus surgeries.

Current Treatments and Their Limitations

Current treatments are directed towards managing the symptoms of CRS through a combination of medical management and surgical intervention techniques. The first line of therapy is medical management

involving nasal saline irrigation, intranasal corticosteroidal sprays, oral steroids and antibiotics for patients with an active sinus infection. However, these treatments have significant limitations. Topical steroid sprays have poor efficacy due to their limited ability to reach the site of the disease, fast clearance of drug from the site of delivery and poor patient compliance. Prolonged use of oral steroids may lead to systemic complications which limit their use to short courses. Based on published medical literature, we estimate at least 50% of CRS patients who are seen by ENT physicians and receive medical management remain symptomatic.

Patients whose symptoms persist despite medical management are generally recommended to undergo functional endoscopic sinus surgery (or FESS) or balloon sinus dilation (or BSD), or both. FESS is a highly invasive surgery performed in the operating room, under full anesthesia, to open the blocked sinus pathways by removing inflamed tissue and bone using surgical tools. BSD is a less severe form of endoscopic sinus surgery, often used in combination with FESS, in which small balloon catheters are inserted and inflated to drain the large nasal sinuses. Although FESS and BSD can improve symptoms and quality of life, limitations remain. Neither correct the underlying cause of the inflammation, and patients who undergo either or both procedures often experience significant pain and require continued post-operative medical therapy to maintain improvements, with a high incidence of repeat surgeries.

CRS has two phenotypes: CRS with nasal polyps and CRS without nasal polyps, with the non-polyp form representing approximately 70%-to-90% of all CRS patients. For patients with nasal polyps who remain symptomatic following surgery, who we refer to as refractory patients, there are non-surgical options, such as a steroid-eluting stent and a monoclonal antibody. However, each of these treatments has limitations. The steroid-eluting stent has only a three month elution profile. Meanwhile, the antibody treatment is reserved for only the most refractory patients, has an unknown long-term systemic safety profile and is priced at a significant premium even when compared to surgical options. Currently, there are no FDA-approved drug therapies for CRS for non-polyp patients, although some drugs approved for nasal polyps are used off-label in this population.

Our XTreo Platform

XTreo, our innovative and proprietary drug delivery platform, is designed to locally and continuously deliver small molecule drugs to the affected tissue over a sustained period of time from a single administration. The platform is comprised of three interrelated technology components:

- a biocompatible mesh scaffold, which is designed to maximize surface area for drug release while maintaining underlying tissue function;
- an engineered elastomeric matrix, which means a polymeric matrix composed of polymers having elastic characteristics, which has advanced physical properties resulting in implants with “shape memory” that dynamically adapt to nasal anatomy; and
- a versatile polymer-drug complex, which can be customized for the treatment of various chronic diseases treatable with ENT delivery to achieve the desired drug dose and drug elution rate.

Our Solution for CRS

LYR-210 is an anti-inflammatory implantable drug matrix based on our XTreo platform that is designed to consistently and locally elute MF to the inflamed mucosal tissue for up to six months in surgically-naïve CRS patients who fail medical management. MF, the active ingredient in various FDA-approved drugs, has a well-established efficacy and safety profile, which we believe will support the development process for LYR-210. LYR-210 is designed to enable sustained drug delivery at difficult-to-access nasal inflammation sites without the need for patient compliance, while avoiding systemic side effects associated with oral steroids. LYR-210 is designed to be administered in a brief, non-invasive, in-office procedure by an ENT physician under endoscopic visualization via a single-use applicator.

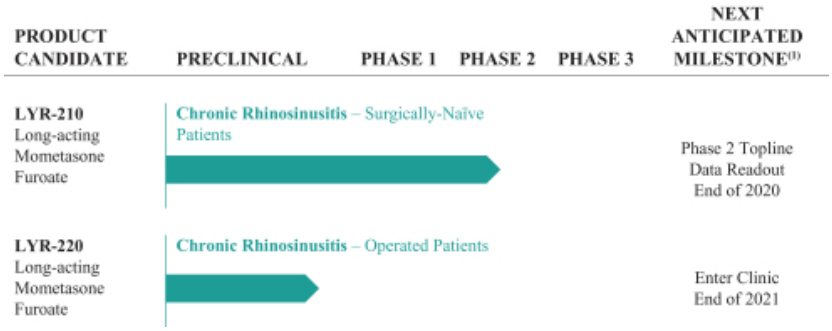
LYR-210 is currently being studied in our Phase 2 randomized, sham procedure-controlled, patient-blinded LANTERN clinical trial, evaluating the safety and efficacy in surgically-naïve CRS patients who have failed previous medical management. The trial was designed to enroll 99 evaluable patients with the potential to increase to up to 150 patients and was initiated in May 2019 at sites in Australia, Austria, Czech Republic, New Zealand and Poland. In December 2019, the FDA cleared our investigational new drug application, and, prior to the COVID-19 pandemic, we planned to open new sites in the United States. However, in light of recent developments relating to the COVID-19 global pandemic, and as described below, we discontinued enrollment at 67 patients in our ongoing Phase 2 LANTERN clinical trial and do not expect to open any sites in the United States. We are leveraging remote electronic data collection to enable us to complete the clinical assessments and generate sufficient information to design our Phase 3 clinical trial. As of April 2020, there were no reported serious adverse events in the Phase 2 LANTERN clinical trial. Subject to the impact of COVID-19 on our business, we expect to report topline data from the Phase 2 LANTERN clinical trial by the end of 2020. LYR-210 was previously studied in an open-label, Phase 1 clinical trial with 20 patients in New Zealand and Australia and achieved its primary endpoint of safety at week 4. In the Phase 1 trial, we observed that patients generally experienced significant and rapid, clinically meaningful and durable improvement in SNOT-22 scores. Significant reduction in SNOT-22 scores was observed at week 1, and this reduction persisted through week 25, which was the end of the trial.

We are developing our second pipeline product candidate, LYR-220, for use in CRS patients who continue to require treatment to manage CRS symptoms despite having had sinus surgery. LYR-220 is also designed to utilize MF, but will employ an oversized matrix designed for patients whose nasal cavity is enlarged due to sinus surgery. LYR-220 is designed as a potential preferred alternative to revision sinus surgery and post-surgical medical management. Subject to the impact of COVID-19 on our business, we expect to initiate a proof-of-concept clinical trial for LYR-220 by the end of 2021.

We believe that the key potential benefits of our current investigational product portfolio, LYR-210 and LYR-220, include ***clinical activity, patient compliance, patient experience, physician experience, localized delivery, patient applicability and pharmacoeconomic impact***. We believe LYR-210 and LYR-220, if approved, would be the only products able to deliver up to six months of continuous topical treatment in a single administration to treat the entire spectrum of CRS patients who fail medical management, including pre- and post-surgery patients and those with and without nasal polyps.

Our Pipeline

The current status of our product candidates is summarized below.



(1) Anticipated clinical milestones are subject to the impact of COVID-19 on our business.

Our Strategy

Our mission is to transform the ENT treatment paradigm by utilizing our proprietary drug delivery platform, XTreo, to develop safe and effective therapies for the treatment of debilitating diseases treatable with ENT delivery. We intend to achieve this through the following strategies:

- Complete the development and secure FDA approval of LYR-210 for the treatment of CRS.
- Advance our second product candidate, LYR-220, into the clinic to provide a comprehensive solution for CRS patients who have failed medical management and surgery.
- Build a commercialization infrastructure in the U.S. market for LYR-210 and LYR-220.
- Maximize the value of our XTreo platform and expand our product pipeline.
- Seek strategic collaborative relationships.

Intellectual Property and Barriers to Entry

We own all the material intellectual property rights related to our platform and product candidate portfolio. As of March 31, 2020, our product and product candidate portfolio is protected by 23 issued and 25 pending patents worldwide with claims directed to composition of matter, drug delivery and method of use, which, exclusive of possible patent term adjustments or extensions or other forms of exclusivity, are projected to expire between 2030 and 2037.

Management Team and Investors

Our management team has extensive drug development, manufacturing and commercialization experience across a broad spectrum of disease areas, for both drug and drug-device combination products, with a successful track record in large pharmaceutical, medical device and biotech companies. Additionally, our management team has been involved in the development of successfully approved and commercialized products such as Taxus (drug-eluting stent), AvoneX, Arikayce and Panhematin.

Further, we are supported by a leading group of biotech investors including, among others, ArrowMark Partners, Intersouth Partners, North Bridge Venture Partners, Perceptive Advisors, Polaris Venture Partners, RA Capital and Soleus Capital.

Recent Developments

On March 11, 2020, the World Health Organization declared the outbreak of COVID-19 as a global pandemic, which continues to spread throughout the United States, Europe and around the world. On March 23, 2020, the governor of Massachusetts ordered the closure of all non-essential businesses effective March 24, 2020, through April 2020, which was subsequently extended through May 4, 2020. Because of the nature of our operations, we are currently considered to be an essential business so, to date, our operations have only been partially affected by this order. As we continue to actively advance our product candidates, we are in close contact with our principal investigators and clinical sites and are assessing the impact of the COVID-19 global pandemic on our ongoing Phase 2 LANTERN clinical trial, expected timelines and costs on an ongoing basis. In light of recent developments relating to the COVID-19 global pandemic, the focus of healthcare providers and hospitals on fighting the virus, and consistent with the FDA's updated industry guidance for conducting clinical trials issued on March 18, 2020, we discontinued enrollment at 67 patients in our ongoing Phase 2 LANTERN

clinical trial and we currently do not plan to open any sites in the United States. We are leveraging remote electronic data collection to enable us to complete the clinical assessments and generate sufficient information to design our Phase 3 clinical trial and, subject to the impact of COVID-19 on our business, expect to report topline data from the Phase 2 LANTERN clinical trial by the end of 2020. In addition, in response to the spread of COVID-19, we have closed our executive offices, with our administrative employees continuing their work outside of our offices. We will continue to evaluate the impact of the COVID-19 global pandemic on our business and expect to reevaluate the timing of our anticipated clinical milestones as we learn more and the impact of COVID-19 on our business and industry becomes more clear. See "Risk Factors—Risks Related to Employee Matters and Managing Growth—The global pandemic caused by COVID-19 could adversely impact our business and operations, including our clinical trials" for more information regarding the potential impact of COVID-19 on our business and operations.

Risk Factors

Our business is subject to a number of risks of which you should be aware before making an investment decision. You should carefully consider all of the information set forth in this prospectus and, in particular, should evaluate the specific factors set forth under "Risk Factors" in deciding whether to invest in our common stock. These risks include the following:

- we have a limited operating history and a history of escalating operating losses, which may make it difficult to evaluate the prospects for our future viability;
- we have incurred significant losses since inception and expect to incur significant additional losses for the foreseeable future, and we may never achieve profitability;
- even if this offering is successful, we will need significant additional funding in order to complete development of and obtain regulatory approval for our product candidates and commercialize our products, if approved;
- our business is highly dependent on the success of our most advanced product candidate, LYR-210, which will require significant additional clinical testing before we can seek regulatory approval and potentially launch commercial sales, and if LYR-210 does not receive regulatory approval or is not successfully commercialized, or is significantly delayed in doing so, our business will be harmed;
- clinical trials required for our product candidates are expensive and time-consuming, their outcome is uncertain, and if our clinical trials do not meet safety or efficacy endpoints in these evaluations, or if we experience significant delays in these trials, our ability to commercialize our product candidates and our financial position will be impaired;
- developments by competitors may render our products or technologies obsolete or non-competitive or may reduce the size of our markets;
- the successful commercialization of our product candidates will depend in part on the extent to which governmental authorities and health insurers establish coverage, adequate reimbursement levels and pricing policies, and the failure to obtain or maintain coverage and adequate reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate revenue;
- even if either LYR-210 or LYR-220 receives marketing approval, it may fail to achieve market acceptance by physicians, patients, third-party payors or others in the medical community necessary for commercial success;

- we will rely on third parties for the manufacture of materials for our research programs, pre-clinical studies and clinical trials and we do not have long-term contracts with any of these parties, which increases the risk that we will not have sufficient quantities of such materials, product candidates, or any therapies that we may develop and commercialize, or that such supply will not be available to us at an acceptable cost, which could delay, prevent, or impair our development or commercialization efforts;

- we rely on third parties to conduct our pre-clinical studies and clinical trials, and any failure by a third party to conduct the clinical trials according to GCPs and in a timely manner may delay or prevent our ability to seek or obtain regulatory approval for or commercialize our product candidates;

- if we are unable to obtain, maintain or adequately protect our intellectual property rights, we may not be able to compete effectively in our markets;

- if we lose key management or scientific personnel, cannot recruit qualified employees, directors, officers or other significant personnel or experience increases in our compensation costs, our business may materially suffer; and

- the global pandemic caused by COVID-19 could adversely impact our business and operations, including our clinical trials.

Implications of Being an Emerging Growth Company

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or JOBS Act. An “emerging growth company” may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- the option to present only two years of audited financial statements and only two years of related “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this prospectus;

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended;

- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements;

- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration 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 may take advantage of these provisions until the last day of our fiscal year following the fifth anniversary of the completion of this offering. However, if prior to the end of such five-year period, (i) our annual gross revenue exceeds $1.07 billion, (ii) we issue more than $1.0 billion of non-convertible debt in any three-year period or (iii) we become a “large accelerated filer” (as defined in Rule 12b-2 under the Securities

Exchange Act of 1934, as amended, or the Exchange Act), then we will cease to be an emerging growth company prior to the end of such five-year period. We will be deemed to be a "large accelerated filer" at such time that we (a) have an aggregate worldwide market value of common equity securities held by non-affiliates of $700.0 million or more as of the last business day of our most recently completed second fiscal quarter, (b) have been required to file annual and quarterly reports under the Exchange Act, for a period of at least 12 months and (c) have filed at least one annual report pursuant to the Exchange Act. Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company," which would allow us to take advantage of many of the same exemptions from disclosure requirements, including reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements.

We have elected to take advantage of certain of the reduced disclosure obligations in the registration statement of which this prospectus is a part and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards.

Corporate Information

We were incorporated under the laws of the State of Delaware in November 2005 under the name WMR Biomedical, Inc. In July 2018, we changed our name to Lyra Therapeutics, Inc. Our principal executive offices are located at 480 Arsenal Way, Watertown, MA 02472 and our telephone number is (617) 393-4600. Our website address is *www.lyratherapeutics.com*. The information contained in, or accessible through, our website does not constitute a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

The Offering

Common stock offered by us	3,500,000 shares
Common stock to be outstanding after this offering	12,376,378 shares (or 12,901,378 shares if the underwriters exercise their option to purchase additional shares in full).
Option to purchase additional shares	The underwriters have a 30-day option to purchase up to 525,000 additional shares of our common stock at the public offering price less estimated underwriting discounts and commissions.
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $46.2 million (or approximately $53.6 million if the underwriters exercise in full their option to purchase additional shares of common stock), at an assumed public offering price of $15.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us. We anticipate that we will use the net proceeds of this offering, together with our existing cash and cash equivalents, to fund the clinical development and manufacturing and other pre-commercialization expenses for LYR-210 through completion of our Phase 3 clinical trial; to fund the development of LYR-220 through completion of our Phase 2 clinical trial; and the remainder, if any, to complete the transfer of our manufacturing process to a contract manufacturer, for platform development and other research and development expenses for our pipeline, and for working capital and general corporate purposes. See “Use of Proceeds” beginning on page 81 for additional information.
Risk factors	You should carefully read the “Risk Factors” beginning on page 13 and the other information included in this prospectus for a discussion of factors you should consider carefully before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	“LYRA”

The number of shares of our common stock to be outstanding after this offering is based on 230,860 shares of our common stock outstanding as of March 31, 2020, and excludes:

- 682,218 shares of common stock issuable upon exercise of stock options outstanding under our 2016 Equity Incentive Plan, or our 2016 Plan, as of March 31, 2020, at a weighted-average exercise price of $3.70 per share;
- 219,460 shares of common stock issuable upon exercise of stock options outstanding under our 2005 Equity Incentive Plan, or our 2005 Plan, as of March 31, 2020, at a weighted-average exercise price of $16.60 per share;

- 494,716 shares of common stock issuable upon the exercise of stock options to be granted in connection with this offering under our 2020 Incentive Award Plan, or the 2020 Plan, which will become effective in connection with this offering, to certain of our directors, executive officers and employees, at an exercise price per share equal to the initial public offering price in this offering;

- 1,605,284 additional shares of our common stock reserved for future issuance under our 2020 Plan, which will become effective in connection with this offering, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under our 2020 Plan; and

- 150,000 shares of our common stock that will become available for future issuance under our 2020 Employee Stock Purchase Plan, or our 2020 ESPP, which will become effective in connection with this offering, and shares of our common stock that become available pursuant to provisions in the 2020 ESPP that automatically increase the share reserve under our 2020 ESPP.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- a one-for-34.483 reverse stock split of our common stock, which became effective on April 27, 2020;

- the issuance and sale of 78,306,611 shares of our Series C preferred stock, at a price of $0.38811 per share, and warrants to purchase 681,256 shares of our common stock, in each case, in January 2020;

- the issuance to George Whitesides, Ph.D., one of our directors, in lieu of compensation payable by us under a consulting agreement, of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering (a $1.00 increase in the assumed initial public offering price of $15.00 per share would decrease the number of shares of our common stock issued by 1,311 shares; a $1.00 decrease in the assumed initial public offering price of $15.00 per share would increase the number of additional shares of our common stock issued by 1,498 shares);

- the automatic cashless exercise of outstanding warrants to purchase shares of common stock, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 289,298 shares of our common stock upon the closing of this offering (a $1.00 increase in the assumed initial public offering price of $15.00 per share would increase the number of additional shares of our common stock issuable in connection with such automatic exercise by an aggregate of 24,496 shares; a $1.00 decrease in the assumed initial public offering price of $15.00 per share would decrease the number of additional shares of our common stock issuable in connection with such exercise by an aggregate of 27,992 shares);

- the conversion of all outstanding shares of our preferred stock into an aggregate of 8,335,248 shares of our common stock upon the closing of this offering;

- no exercise of outstanding options or warrants after March 31, 2020, other than as described above;

- no exercise by the underwriters of their option to purchase additional shares of our common stock; and

- the filing of our restated certificate of incorporation, which will occur upon the closing of this offering.

Summary Consolidated Financial Data

The following tables set forth our summary consolidated financial data as of, and for the periods ended on, the dates indicated. We have derived the consolidated statements of operations data for the years ended December 31, 2019 and 2018 and the consolidated balance sheet data as of December 31, 2019 from our audited consolidated financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that should be expected for any future period. You should read the following summary consolidated financial data together with the more detailed information contained in "Selected Consolidated Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes included elsewhere in this prospectus.

	Years Ended December 31,	
	2019	2018
	(in thousands, except share and per share data)	
Consolidated Statement of Operations Data:		
Grant revenues	$ —	$ 1,244
Operating expenses:		
Research and development	12,032	4,975
General and administrative	4,487	3,528
Total operating expenses	16,519	8,503
Loss from operations	(16,519)	(7,259)
Other income:		
Interest income (expense), net	213	36
Other income, net	—	10
Change in fair value of tranche liability	—	1,184
Total other income, net	213	1,230
Net loss	$ (16,306)	$ (6,029)
Net loss per share attributable to common stockholders—basic and diluted(1)	$ (82.23)	$ (36.79)
Weighted-average common shares outstanding—basic and diluted(1)	202,093	166,084
Pro forma net loss per share attributable to common stockholders—basic and diluted (unaudited)(1)	$ (2.65)	
Pro forma weighted-average common shares outstanding—basic and diluted (unaudited)(1)	6,266,472	

(1) See Note 2 to our to audited consolidated financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma basic and diluted net loss per common share and the weighted average number of shares used in the computation of the per share amounts.

	As of December 31, 2019		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2)(3)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 9,808	$ 39,994	$ 86,224
Working capital(4)	4,911	35,412	81,642
Total assets	14,963	45,149	91,379
Total liabilities	7,635	7,320	7,320
Redeemable convertible preferred stock	130,666	—	—
Additional paid-in capital	4,419	165,578	211,804
Accumulated deficit	(127,757)	(127,757)	(127,757)
Total stockholders' (deficit) equity	(123,338)	37,829	84,059

(1) The pro forma consolidated balance sheet data gives effect to (1) the issuance and sale of 78,306,611 shares of our Series C preferred stock, at a price of $0.38811 per share, and warrants to purchase 681,256 shares of our common stock, in each case, in January 2020, (2) the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 8,335,248 shares of common stock, (3) the issuance to George Whitesides, Ph.D., one of our directors, in lieu of compensation payable by us under a consulting agreement, of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering (a $1.00 increase in the assumed initial public offering price of $15.00 per share would decrease the number of shares of our common stock issued by 1,311 shares; a $1.00 decrease in the assumed initial public offering price of $15.00 per share would increase the number of shares of our common stock issued by 1,498 shares) and (4) the automatic cashless exercise of outstanding warrants to purchase shares of common stock, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 289,298 shares of our common stock upon the closing of this offering (a $1.00 increase in the assumed initial public offering price of $15.00 per share would increase the number of additional shares of our common stock issuable in connection with such automatic exercise by an aggregate of 24,496 shares; a $1.00 decrease in the assumed initial public offering price of $15.00 per share would decrease the number of additional shares of our common stock issuable in connection with such exercise by an aggregate of 27,992 shares), which will occur upon the closing of this offering.

(2) Reflects the pro forma adjustments described in footnote (1) and the issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) Each $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, working capital, total assets, additional paid-in capital and total stockholders' equity by $3.25 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 and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price would increase (decrease) each of cash and cash equivalents, working capital, total assets, additional paid-in capital and total stockholders' equity by $13.95 million. The pro forma information

discussed above is illustrative only and will be adjusted based on the actual initial public offering price and other terms of our initial public offering determined at pricing.

(4) We define working capital as current assets less current liabilities. See our consolidated financial statements for further details regarding our current assets and current liabilities.

RISK FACTORS

You should carefully consider the risks and uncertainties described below and the other information in this prospectus before making an investment in our common stock. Our business, financial condition, results of operations, or prospects could be materially and adversely affected if any of these risks occurs, and as a result, the market price of our common stock could decline and you could lose all or part of your investment. This prospectus also contains forward-looking statements that involve risks and uncertainties. See "Special Note Regarding Forward-Looking Statements." Our actual results could differ materially and adversely from those anticipated in these forward-looking statements as a result of certain factors, including those set forth below.

Risks Related to Our Financial Position and Need for Additional Capital

We have a limited operating history and a history of escalating operating losses, which may make it difficult to evaluate the prospects for our future viability.

We are a clinical-stage therapeutics company established in November 2005. Our operations to date have been limited to financing and staffing our company, developing our technology and identifying and developing our product candidates. Our prospects must be considered in light of the uncertainties, risks, expenses, and difficulties frequently encountered by companies in their early stages of operations. We have not yet demonstrated an ability to obtain marketing approval, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, predictions about our future success or viability may not be as accurate as they could be if we had a longer operating history or a history of successfully developing, obtaining marketing approval for and commercializing CRS treatments.

In addition, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown obstacles. We will eventually need to transition from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

As we continue to build our business, we expect our financial condition and operating results may fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any particular quarterly or annual period as indications of future operating performance.

We have incurred significant losses since inception and expect to incur significant additional losses for the foreseeable future. We may never achieve or maintain profitability.

We have incurred significant operating losses since our inception, including operating losses of approximately $16.3 million and $6.0 million for the fiscal years ended December 31, 2019 and December 31, 2018, respectively. In addition, we have not commercialized any products and have never generated any revenue from product sales. We have devoted almost all of our financial resources to research and development, including our pre-clinical development activities.

In addition, we expect to continue to incur significant additional operating losses for the foreseeable future as we seek to advance product candidates through pre-clinical and clinical development, expand our research and development activities, develop new product candidates, complete pre-clinical studies and clinical trials, seek regulatory approval and, if we receive FDA approval, commercialize our products. In order to obtain FDA approval of any product candidate, we must submit to the FDA an NDA demonstrating that the product candidate is safe for humans and effective for its intended use. This demonstration requires significant research and animal tests, which are referred to as non-clinical or pre-clinical studies, as well as human tests, which are referred to as clinical trials. Furthermore, the costs of advancing product candidates into each succeeding clinical phase tend to increase substantially over time. The total costs to advance any of our product candidates to

marketing approval in even a single jurisdiction would be substantial. Because of the numerous risks and uncertainties associated with ENT disease treatment product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to begin generating revenue from the commercialization of products or achieve or maintain profitability. Our expenses will also increase substantially if and as we:

- continue additional clinical trials of our most advanced product candidate, LYR-210, including the Phase 2 LANTERN trial, which commenced in May 2019 and one or more planned pivotal Phase 3 clinical trials of LYR-210;
- advance the development of LYR-220;
- continue to discover and develop additional product candidates;
- establish manufacturing and supply chain capacity sufficient to provide commercial quantities of any product candidates for which we may obtain marketing approval;
- seek regulatory and marketing approvals for product candidates that successfully complete clinical trials, if any;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain regulatory approval in geographies in which we plan to commercialize our products ourselves;
- maintain, expand and protect our intellectual property portfolio;
- hire additional staff, including clinical, scientific, technical, regulatory, operational, financial, commercial and support personnel, to execute our business plan;
- add clinical, scientific operational, financial and management information systems and personnel to support our product development and potential future commercialization efforts, and as to enable us to operate as a public reporting company;
- utilize external vendors for support with respect to research, development, commercialization, regulatory, pharmacovigilance and other functions;
- acquire or in-license other commercial products, product candidates and technologies;
- expand internationally;
- make royalty, milestone or other payments under current and any future in-license agreements;
- implement additional internal systems and infrastructure; and
- operate as a public company.

Furthermore, our ability to successfully develop, commercialize and license our products and generate product revenue is subject to substantial additional risks and uncertainties. Each of our product candidates will require additional pre-clinical and/or clinical development, potential regulatory approval in multiple jurisdictions, the securing of manufacturing supply, capacity and expertise, the use of external vendors, the building of a commercial organization, substantial investment and significant marketing efforts before we generate any revenue from product sales. As a result, we expect to continue to incur net losses and negative cash flows for the foreseeable future. These net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital.

The amount of future losses and when, if ever, we will achieve profitability are uncertain. We have no products that have generated any commercial revenue, do not expect to generate revenues from the commercial sale of products in the foreseeable future, and might never generate revenues from the sale of products. Our ability to generate revenue and achieve profitability will depend on, among other things, successful completion of the clinical development of our product candidates; obtaining necessary regulatory approvals from the FDA and international regulatory agencies; establishing manufacturing, sales, market acceptance of our products and marketing infrastructure to commercialize our product candidates for which we obtain approval; and raising sufficient funds to finance our activities. We might not succeed at any of these undertakings. If we are unsuccessful at some or all of these undertakings, our business, prospects, and results of operations may be materially adversely affected.

Even if this offering is successful, we will need significant additional funding in order to complete development of and obtain regulatory approval for our product candidates and commercialize our products, if approved. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

Even after the consummation of this offering, we will continue to need additional capital beyond the proceeds of this offering, which we may raise through equity offerings, debt financings, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements or other sources. Additional sources of financing might not be available on favorable terms, if at all. If we do not succeed in raising additional funds on acceptable terms, we might be unable to complete planned clinical trials or obtain approval of any of our product candidates from the FDA, or any foreign regulatory authorities, and could be forced to discontinue product development. In addition, attempting to secure additional financing may divert the time and attention of our management from day-to-day activities and harm our product candidate development efforts.

We will require substantial funds to further develop, obtain approval for and commercialize our product candidates, including LYR-210, which is currently in Phase 2 clinical development. We will also require substantial funds to further develop, obtain approval for and commercialize our other product candidate, LYR-220, which is in pre-clinical development.

Based on our current operating plan, we believe that the anticipated net proceeds from this offering and our current cash and cash equivalents will be sufficient to enable us to fund our operating expenses and capital expenditure requirements into the fourth quarter of 2023. This estimate is based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Changing circumstances could cause us to consume capital significantly faster than we currently anticipate, and we may need to spend more than currently expected because of circumstances beyond our control. Because the length of time and activities associated with successful development of LYR-210 and LYR-220 is highly uncertain, we are unable to estimate the actual funds we will require for development, approval and any approved marketing and commercialization activities. Our future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the scope and results of our pre-clinical studies and clinical trials, including any unforeseen costs we may incur as a result of pre-clinical study or clinical trial delays due to the COVID-19 global pandemic or other causes;
- the timing of, and the costs involved in, obtaining regulatory approvals for LYR-210 and LYR-220;
- the costs and timing of changes in the regulatory environment and enforcement rules;
- the costs and timing in changes in pharmaceutical pricing and reimbursement infrastructure;

- the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims and other patent-related costs, including any litigation costs and the results of such litigation;
- the effect of competing technological and market developments;
- the extent to which we in-license or acquire other products and technologies;
- the cost of establishing sales, marketing and distribution capabilities for our product candidates in regions where we choose to commercialize our products; and
- the initiation, progress, timing and results of our commercialization of LYR-210 and LYR-220, if approved for commercial sale.

Depending on our business performance, the economic climate and market conditions, we may be unable to raise additional funds through any sources. Market volatility resulting from the COVID-19 global pandemic could also adversely impact our ability to access capital as and when needed. If we are unable to obtain adequate funding on a timely basis, we may be required to curtail or discontinue one or more of our development programs for LYR-210 or LYR-220, or to reduce our operations. If we raise additional funds by issuing equity securities, our then-existing stockholders will experience dilution and the terms of any new equity securities may have preference over those of our existing common stock.

Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, as we can generate substantial revenue, we may finance our cash needs through a combination of equity offerings, debt financings, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans.

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 these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our operations, our ability to take specific actions, such as incurring additional debt, making capital expenditures, declaring dividends, redeeming our stock, making certain investments and engaging in certain merger, consolidation or asset sale transactions, among other restrictions. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights to our technologies, future revenue streams or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

We have no approved products.

To date, we have no approved product on the market and have generated no product revenues. Unless we receive approval from the FDA or other regulatory authorities for our product candidates, we will not have product revenues. Therefore, for the foreseeable future, we will have to fund all of our operations and capital expenditures from the net proceeds of this offering, cash on hand, and licensing fees and grants, if any.

Our product candidates are in various stages of development.

We are a therapeutics company focused on the development and commercialization of novel integrated drug and drug delivery solutions for the localized treatment of patients with ENT diseases. Our product candidates are at stages of pre-clinical or clinical development, and favorable results in pre-clinical or early stage clinical trials may not be predictive of success in later clinical trials and may not lead to commercially viable products for any of several reasons. For example, our product candidates may fail to be safe and effective in current or future clinical trials or pre-clinical studies, or we may have inadequate financial or other resources to pursue discovery and development efforts for new product candidates. Our product candidates will require significant additional development, clinical trials, regulatory clearances and additional investment by us before they can be commercialized.

Our business is highly dependent on the success of our most advanced product candidate, LYR-210, which will require significant additional clinical testing before we can seek regulatory approval and potentially launch commercial sales. If LYR-210 does not receive regulatory approval or is not successfully commercialized, or is significantly delayed in doing so, our business will be harmed.

A substantial portion of our business and future success depends on our ability to develop, obtain regulatory approval for and successfully commercialize our most advanced product candidate, LYR-210. We currently have no products that are approved for commercial sale and have not completed the development of any product candidates, and may never be able to develop marketable products. We expect that a substantial portion of our efforts and expenditures over the next few years will be devoted to LYR-210, which will require additional clinical development and potential additional pre-clinical development, management of clinical, medical affairs and manufacturing activities, regulatory approval in multiple jurisdictions, the securing of manufacturing supply, the building of a commercial organization, substantial investment and significant marketing efforts before we can generate any revenues from any commercial sales. We cannot be certain that LYR-210 will be successful in ongoing or future clinical trials, receive regulatory approval or be successfully commercialized even if we receive regulatory approval. Even if we receive approval to market LYR-210 from the FDA or other regulatory bodies, we cannot be certain that our product candidates will be successfully commercialized, widely accepted in the marketplace or more effective than other commercially available alternatives. Nor can we be certain that, if and when approved, the safety and efficacy profile of LYR-210 or our other product candidates will be consistent with the profiles observed in clinical trials.

LYR-210 is currently being studied in our Phase 2 randomized, sham procedure-controlled, patient blinded LANTERN clinical trial, evaluating the safety and efficacy in surgically-naïve CRS patients who have failed previous medical management. The trial was designed to enroll 99 evaluable patients with the potential to increase to up to 150 patients and was initiated in May 2019 at sites in Australia, Austria, Czech Republic, New Zealand and Poland. In December 2019, the FDA cleared our investigational new drug application, and, prior to the COVID-19 pandemic, we planned to enroll patients in the United States. However, in light of recent developments relating to the COVID-19 global pandemic, as described below, we discontinued enrollment at 67 patients in our ongoing Phase 2 LANTERN clinical trial and do not expect to enroll patients in the United States in Phase 2.

As a result of the decrease in the number of patients enrolled from planned (99) to actually enrolled (67) patients in our ongoing Phase 2 LANTERN clinical trial, a greater magnitude of change in composite score of the seven-day average of four cardinal symptoms from baseline at week 4 and/or a smaller standard deviation associated with the change from baseline at week 4 will be required in order for the trial to achieve statistical significance for the primary endpoint. Moreover, while we are leveraging remote electronic data collection to enable us to complete the clinical assessments and generate sufficient information to design our Phase 3 clinical trial, there can be no assurance that the COVID-19 global pandemic or other delays or disruptions will not hinder our electronic data collection or our collection of data for certain secondary endpoints which require sinus imaging to assess reduction in inflammation and phlebotomy to assess pharmacokinetics/pharmacodynamics. For example, subjects may currently be unable or unwilling to attend a protocol-specified clinic visit due to restrictions caused by the COVID-19 global pandemic and therefore data for certain secondary endpoints will be unable to be timely collected and assessed in the clinical trial.

If the required regulatory approvals for LYR-210 are not obtained or are significantly delayed, including as a result of the COVID-19 global pandemic, or any approved products are not commercially successful, our business, financial condition and results of operations may be materially harmed.

LYR-210 is our most advanced product candidate, and if we experience regulatory or developmental issues with respect to LYR-210, our development plans and business could be significantly harmed. Moreover, if we experience similar regulatory or developmental issues with our other pipeline product candidates, our development plans and business could be significantly harmed. Further, our competitors may be developing products with similar mechanisms of action and may experience problems with their products that could identify problems that would potentially harm our business.

We may not be successful in our efforts to identify and successfully commercialize additional product candidates.

Part of our strategy involves identifying novel product candidates. The process by which we identify product candidates may fail to yield product candidates for clinical development for a number of reasons, including those discussed in these risk factors and also:

- we may not be able to assemble sufficient resources to acquire or discover additional product candidates;
- competitors may develop alternatives that render our potential product candidates obsolete or less attractive;
- potential product candidates we develop may nevertheless be covered by third parties' patents or other exclusive rights;
- potential product candidates may, on further study, be shown to have harmful side effects, toxicities or other characteristics that indicate that they are unlikely to be products that will receive marketing approval or achieve market acceptance;
- potential product candidates may not be effective in treating their targeted diseases or symptoms;
- the market for a potential product candidate may change so that the continued development of that product candidate is no longer reasonable;
- a potential product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; or
- the regulatory pathway for a potential product candidate is highly complex and difficult to navigate successfully or economically.

In addition, we may choose to focus our efforts and resources on a potential product candidate that ultimately proves to be unsuccessful, or to license or purchase a marketed product that does not meet our financial expectations. As a result, we may fail to capitalize on viable commercial products or profitable market opportunities, be required to forego or delay pursuit of opportunities with other product candidates or other diseases that may later prove to have greater commercial potential, or relinquish valuable rights to such product candidates through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to retain sole development and commercialization rights. If we are unable to identify and successfully commercialize additional suitable product candidates, this would adversely impact our business strategy and our financial position.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of

opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to timely capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

Risks Related to Discovery, Development, Clinical Testing, Manufacturing and Regulatory Approval

Clinical trials required for our product candidates are expensive and time-consuming, their outcome is uncertain, and if our clinical trials do not meet safety or efficacy endpoints in these evaluations, or if we experience significant delays in these trials, our ability to commercialize our product candidates and our financial position will be impaired.

We began dosing patients in our Phase 2 LANTERN clinical trial of our most advanced product, LYR-210, in May 2019. Our other product candidate, LYR-220, is in pre-clinical development. It is impossible to predict when or if either of our product candidates will prove effective and safe in humans or if we will receive regulatory approval for any of our product candidates, and the risk of failure through the development process is high. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete pre-clinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans.

Clinical development is a long, expensive and uncertain process that is subject to significant delays. Due to known or unknown circumstances beyond our control, it may take us several years to complete our testing, and failure can occur at any stage of testing. The outcome of pre-clinical testing and early clinical trials may not be predictive of the results of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. We cannot assure you that any clinical trial that we are conducting, or may conduct in the future, will demonstrate consistent or adequate efficacy and safety to obtain regulatory approval to market our product candidates. Moreover, pre-clinical and clinical data are often susceptible to varying interpretations and analysis, and many companies that have believed their product candidates performed satisfactorily in pre-clinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products.

Delays associated with products for which we are directly conducting pre-clinical studies or clinical trials may cause us to incur additional operating expenses. The commencement and rate of completion of pre-clinical studies or clinical trials may be delayed by, or terminated because of, many factors, including:

- the FDA or comparable foreign regulatory authorities disagreeing as to the design or implementation of our pre-clinical studies or clinical trials;
- failure to obtain regulatory approval to commence a trial;
- failure to reach, or delays in reaching, an agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- slower than expected rates of recruitment of patients or failure to recruit a sufficient number of patients;
- modification of pre-clinical studies or clinical trial protocols;
- changes in regulatory requirements for pre-clinical studies or clinical trials;
- the impact of unusual placebo effects;
- the lack of effectiveness during pre-clinical studies or clinical trials;

- the emergence of unforeseen safety issues or undesirable side effects;
- failure to obtain institutional review board, or the IRB, approval at each site;
- delays, suspension, or termination of clinical trials by the IRB responsible for overseeing the trial at a particular trial site;
- failure of patients in completing a trial or returning for post-treatment follow-up;
- clinical sites deviating from trial protocol, dropping out of a trial or failing to comply with regulatory requirements;
- failure to address patient safety concerns that arise during the course of a trial;
- failure to manufacture sufficient quantities of product candidate for use in clinical trials;
- government, IRB or other regulatory delays or "clinical holds" requiring suspension or termination of the trials; and
- business interruptions resulting from the COVID-19 global pandemic.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates or significantly increase the cost of such trials, including:

- we may receive feedback from regulatory authorities that requires us to modify the design of our clinical trials;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than we anticipate;
- we may be unable to enroll a sufficient number of patients in our clinical trials to ensure adequate statistical power to detect any statistically significant treatment effects;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- regulators, IRBs or independent ethics committees, or IECs, may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site or may require that we or our investigators suspend or terminate clinical trials of our product candidates for various reasons, including non-compliance with regulatory requirements, a finding that our product candidates have undesirable side effects or other unexpected characteristics, or a finding that the participants are being exposed to unacceptable health risks;
- we may experience delays in reaching or fail to reach agreement on acceptable pre-clinical study or clinical trial contracts or pre-clinical study or clinical trial protocols with prospective trial sites;
- the cost of pre-clinical studies or clinical trials of our product candidates may be greater than we anticipate and we may not have funds to cover the costs;

- the supply or quality of our product candidates or other materials necessary to conduct pre-clinical studies or clinical trials of our product candidates may be insufficient or inadequate;
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate; and
- any current or future collaborators that conduct pre-clinical studies or clinical trials may face any of the above issues, and may conduct pre-clinical studies or clinical trials in ways they view as advantageous to them but that are suboptimal for us.

If we are required to extend the duration of current pre-clinical studies or clinical trials or to conduct additional pre-clinical studies or clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete pre-clinical studies or clinical trials of our product candidates or other testing, if the results of these trials, studies or tests are not positive or are only modestly positive, if there are safety concerns or if we determine that the observed safety or efficacy profile would not be competitive in the marketplace, we may:

- incur unplanned costs;
- be delayed in obtaining marketing approval for our product candidates or not obtain marketing approval at all;
- obtain marketing approval in some countries and not in others;
- obtain marketing approval for indications or patient populations that are not as broad as intended or desired;
- obtain marketing approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

We could encounter delays if a clinical trial is materially modified, suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by the Data Safety Monitoring Board, or DSMB, for such trial or by the FDA or other regulatory authorities. Such authorities may impose such a material modification, suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects for our product candidates, or other products or product candidates in the same drug class, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Furthermore, we may rely on CROs and clinical trial sites to ensure the proper and timely conduct of clinical trials and while we would have agreements governing their committed activities, we would have limited influence over their actual performance, as described in "—Risks Related to Our Dependence on Third Parties."

Our most advanced product candidate, LYR-210, is in clinical development and will require the completion of clinical testing before we are prepared to submit an NDA for regulatory approval. We cannot predict if or when we might complete the development of LYR-210 and submit an NDA or whether any such NDA will be approved by the FDA. We may also seek feedback from the FDA or other regulatory authorities on our clinical development programs, and the FDA or such regulatory authorities may not provide such feedback

on a timely basis, or such feedback may not be favorable, which could further delay our development programs. If the results of ongoing and future clinical trials for LYR-210 are positive, we plan to submit an NDA in the United States. However, no assurance can be given that we will be successful in the near term, obtain regulatory approval or have any commercial sales of LYR-210.

Any clinical test may fail to produce results satisfactory to the FDA or foreign regulatory authorities. Pre-clinical and clinical data can be interpreted in different ways by different reviewers and regulators, which could delay, limit or prevent regulatory approval. Drug-related adverse events during a pre-clinical study or clinical trial could cause us to repeat a trial or study, perform an additional trial or study, expand the size and/or duration of a trial or study, terminate a trial or study or even cancel a pre-clinical or clinical program. The failure of pre-clinical studies or clinical trials to demonstrate safety and effectiveness for the desired indications could harm the development of that product candidate and other product candidates. This failure could cause us to abandon a product candidate and could delay development of other product candidates. Any delay in, or termination of, our clinical trials would delay the filing of our NDAs with the FDA and, ultimately, our ability to commercialize our product candidates and generate product revenues. A number of companies in the biotechnology and pharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Even if our future and ongoing pre-clinical studies and clinical trials are completed as planned, we cannot be certain that their results will support the safety and effectiveness of LYR-210, LYR-220 and/or any future product candidate.

If we experience delays in the commencement or completion of, or have to extend or expand, our pre-clinical studies or clinical trials, or if we terminate a pre-clinical study or clinical trial prior to completion, the commercial prospects of LYR-210, LYR-220 or any future product candidate could be harmed, and our ability to generate revenues from LYR-210, LYR-220 or any future product candidate may be delayed. In addition, any delays in our pre-clinical studies or clinical trials could increase our costs, slow down the development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition and results of operations. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of pre-clinical studies or clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

Our pre-clinical studies and clinical trials may fail to demonstrate adequately the safety and efficacy of any of our product candidates and the development of our product candidates may be delayed or unsuccessful, which could prevent or delay regulatory approval and commercialization.

Both of our current product candidates are in clinical or pre-clinical development stages. Notwithstanding the data obtained to date with respect to LYR-210 and LYR-220 in CRS, LYR-210 and LYR-220 will require additional clinical and non-clinical development, regulatory review and approval in multiple jurisdictions, substantial investment, access to sufficient commercial manufacturing capacity and significant marketing efforts before we can generate any revenue from our product sales. In addition, if we encounter safety or efficacy problems, developmental delays or regulatory issues, delays caused by the COVID-19 global pandemic or other problems, our developmental plans and business could be significantly harmed.

If the development of LYR-210, LYR-220 or any other future product candidate is unsuccessful, our ability to generate revenues will be adversely affected. Our development of current and future product candidates is subject to the risks of failure and delay inherent in the development of new products and product candidates, including:

- delays in product development, pre-clinical or clinical testing or manufacturing;
- unplanned expenditures in product development, pre-clinical or clinical testing or manufacturing;
- failure to receive regulatory approvals;

- failure to secure rights from third parties for new technology;
- failure to achieve market acceptance; and
- emergence of superior or equivalent products.

In addition, product candidates in later stages of clinical trials may fail to show the desired safety profiles and efficacy results despite having progressed through pre-clinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Based upon negative or inconclusive results, we may decide, or regulators may require us, to conduct additional clinical trials or pre-clinical studies. In addition, data obtained from trials and studies are susceptible to varying interpretations, and regulators may not interpret our data as favorably as we do, which may delay, limit or prevent regulatory approval.

Additionally, we have not conducted, nor do we believe we are required to conduct, any head-to-head trials comparing LYR-210 to other approved or experimental treatments for CRS. Any such head-to-head trial, if conducted, may show that LYR-210 is not more effective than any of such other drugs. Material adverse differences in the relative efficacy of LYR-210 could significantly harm the adoption of LYR-210 and our business prospects.

Because of these risks, our research and development efforts may not result in any commercially viable products. If a significant portion of these development efforts are not successfully completed, required regulatory approvals are not obtained, or any approved products are not commercially successful, our business, financial condition and results of operations may be materially harmed.

Success in pre-clinical or earlier clinical trials may not be indicative of results in future clinical trials.

Success in pre-clinical studies and early clinical trials does not ensure that later clinical trials will generate the same results or otherwise provide adequate data to demonstrate the efficacy and safety of a product candidate. Pre-clinical studies and Phase 1 and Phase 2 clinical trials are primarily designed to test safety, to study pharmacokinetics and pharmacodynamics and to understand the side effects of product candidates at various doses and schedules. Success in pre-clinical studies and early clinical trials does not ensure that later, large-scale efficacy trials will be successful nor does it predict final results. Our product candidates may fail to show the desired safety and efficacy in clinical development despite positive results in pre-clinical studies or having successfully advanced through initial clinical trials.

In addition, the design of a clinical trial can determine whether its results will support approval of a product, and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced. As an organization, we have limited experience designing clinical trials and may be unable to design and execute a clinical trial to support regulatory approval. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials even after achieving promising results in pre-clinical studies and earlier-stage clinical trials. Data obtained from pre-clinical and clinical activities are subject to varying interpretations, which may delay, limit or prevent regulatory approval. In addition, we may experience regulatory delays or rejections as a result of many factors, including changes in regulatory policy during the period of our product candidate development. Any such delays could negatively impact our business, financial condition, results of operations and prospects.

If the FDA does not conclude that certain of our product candidates satisfy the requirements for the Section 505(b)(2) regulatory approval pathway, or if the requirements for such product candidates under Section 505(b)(2) are not as we expect, the approval pathway for those product candidates may likely take significantly longer, cost significantly more and entail significantly greater complications and risks than anticipated, and in either case may not be successful.

We intend to seek FDA approval for our current product candidates, LYR-210 and LYR-220, and we may seek FDA approval for future product candidates, through the Section 505(b)(2) regulatory pathway. The Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Amendments, added Section 505(b)(2) to the Federal Food, Drug and Cosmetic Act, or FDCA. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from trials 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 under the FDCA, 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 drugs, which could expedite the development program for our product candidates by potentially decreasing the amount of clinical data that we would need to generate in order to obtain FDA approval. If the FDA does not allow us to pursue the Section 505(b)(2) regulatory pathway as we anticipate, we may need to conduct additional clinical trials, provide additional data and information and meet additional standards for regulatory approval. If this were to occur, the time and financial resources required to obtain FDA approval for our product candidates, and complications and risks associated with the development of our product candidates, would likely substantially increase. Moreover, inability to pursue the Section 505(b)(2) regulatory pathway could result in competitive products reaching the market before our product candidates, which could impact our competitive position and prospects. Even if we are allowed to pursue the Section 505(b)(2) regulatory pathway, we cannot assure you that our product candidates will receive the requisite approvals for commercialization, or that a competitor would not obtain approval first along with subsequent market exclusivity from the FDA, thereby delaying potential approval of our product.

In addition, the pharmaceutical industry is highly competitive, and Section 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 Section 505(b)(2) NDA. These requirements may give rise to patent litigation and mandatory delays in approval of our NDAs for up to 30 months or longer depending on the outcome of any litigation. 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. In addition, even if we are able to utilize the Section 505(b)(2) regulatory pathway, there is no guarantee this would ultimately lead to accelerated product development or earlier approval.

Moreover, even if our product candidates are approved under Section 505(b)(2), the approval may be subject to limitations on the indicated uses for which the products may be marketed or to other conditions of approval, or may contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the products.

We have conducted, are conducting and in the future, we may conduct clinical trials for our product candidates in sites outside the United States, and the FDA may not accept data from trials conducted in foreign locations.

We have conducted and are conducting clinical trials for LYR-210 outside the United States, specifically in Australia, Austria, Czech Republic, New Zealand and Poland, and we may in the future choose to conduct other clinical trials outside the United States for LYR-210, LYR-220 or any of our other future product candidates. Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of this data is subject to certain conditions imposed by the FDA. For example, the clinical trial must

be well designed and conducted and performed by qualified investigators in accordance with good clinical practice, or GCP, including review and approval by an IEC and receipt of informed consent from subjects. In general, the patient population for any clinical trials conducted outside of the United States must be representative of the population for which we intend to seek approval for the product in the United States. In addition, while these clinical trials are subject to the applicable local laws, FDA acceptance of the data will be dependent upon its determination that the trials also complied with all applicable U.S. laws and regulations. There can be no assurance the FDA will accept data from trials conducted outside of the United States. If the FDA does not accept the data from our clinical trials of our product candidates, it would likely result in the need for additional trials, which would be costly and time-consuming and delay or permanently halt our development of our product candidates.

In addition, there are risks inherent in conducting clinical trials in multiple jurisdictions, inside and outside of the United States, such as:

- regulatory and administrative requirements of the jurisdiction where the trial is conducted that could burden or limit our ability to conduct our clinical trials;
- foreign exchange fluctuations;
- manufacturing, customs, shipment and storage requirements;
- cultural differences in medical practice and clinical research; and
- the risk that the patient populations in such trials are not considered representative as compared to the patient population in the target markets where approval is being sought.

Interim and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim or preliminary data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Interim or preliminary data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Differences between interim or preliminary data and final data could significantly harm our business prospects.

LYR-210 and LYR-220 are drug-device combinations, which may result in additional regulatory and other risks.

LYR-210 and LYR-220 are drug-device combination products. We may experience delays in obtaining regulatory approval of these product candidates given the increased complexity of the review process when approval of a drug and a delivery device is sought under a single marketing application. Both LYR-210 and LYR-220 will be regulated as drug-device combination products, which require coordination within the FDA and similar foreign regulatory agencies for review of the product candidates' device and drug components. The determination whether a combination product requires a single marketing application or two separate marketing applications for each component is made by the FDA on a case-by-case basis. Although we believe a single marketing application for the approval of a combination product would be successful, there can be no assurance that the FDA will not determine that separate marketing applications are necessary. This determination could significantly increase the resources and time required to bring a particular combination product to market. Although the FDA and similar foreign regulatory agencies have systems in place for the review and approval of

combination products such as ours, we may experience delays in the development and commercialization of our product candidates due to regulatory timing constraints and uncertainties in the product development and approval process, as well as coordination between two different centers within FDA responsible for review of the different components of the combination product.

Failure to successfully develop or supply the device component, delays in or failure of the studies conducted by us, our collaborators, or third-party providers, or failure of our Company, our collaborators, or third-party providers to obtain or maintain regulatory approval or clearance of the device component of LYR-210 or LYR-220, as appropriate, could result in increased development costs, delays in or failure to obtain regulatory approval, and associated delays in these product candidates reaching the market. Further, failure to successfully develop or supply the device, or to gain or maintain its approval, could adversely affect sales of LYR-210 and LYR-220.

If we fail to obtain the necessary U.S. regulatory approvals to commercialize any product candidate, we will not be able to generate revenue in the U.S. market.

We cannot assure you that we will receive the approvals necessary to commercialize our product candidates, or any product candidate we acquire or develop in the future. We will need FDA approval to commercialize our product candidates in the United States and approvals from equivalent regulatory authorities in foreign jurisdictions to commercialize our product candidates in those jurisdictions. Satisfaction of the FDA's regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product candidate and requires substantial resources for research, development and testing. We cannot predict whether our research and clinical efforts will result in drugs that the FDA will determine are safe for humans and effective for their intended uses. The FDA has substantial discretion in the drug approval process and may require us to conduct additional pre-clinical and clinical testing, perform post-marketing studies, address manufacturing concerns, or otherwise limit or impose conditions on any approval we obtain. The approval process may also be delayed by changes in government regulation, the impact of the COVID-19 global pandemic, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals may:

- delay commercialization of, and our ability to derive product revenues from, our product candidates;
- impose costly procedures on us; and
- diminish any competitive advantages that we may otherwise enjoy.

Even if we receive approval of an NDA or comparable foreign regulatory filing for our product candidates, the FDA or the applicable foreign regulatory body may approve our product candidates for a more limited indication than we originally requested, and the FDA may not approve the labeling that we believe is necessary or desirable for the successful commercialization of our product candidates.

Even if we comply with all FDA requests, the FDA may ultimately reject one or more of our NDAs. We cannot be sure that we will ever obtain regulatory clearance for our product candidates. Failure to obtain FDA approval of our product candidates will severely undermine our business by leaving us without a commercially available product, and therefore without any source of revenues, until another product candidate can be developed or obtained and ultimately approved. There is no guarantee that we will ever be able to develop or acquire another product candidate or that we will be able to obtain FDA approval to commercialize such product candidate.

Even if we obtain FDA approval for our product candidates in the United States, we may never obtain approval for or commercialize them in any other jurisdiction, which would limit our ability to realize its full market potential.

We intend either on our own or through collaborations or partnerships, to market our products in international markets. In order to market any products in the European Union and many other foreign jurisdictions, we must establish and comply with numerous and varying regulatory requirements on a country-by-country basis regarding safety and efficacy. Approval by the FDA in the United States does not ensure approval by regulatory authorities in other countries or jurisdictions. However, the failure to obtain approval in one jurisdiction may negatively impact our ability to obtain approval elsewhere. In addition, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not guarantee regulatory approval in any other country.

Approval processes vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and increased costs for us and require additional pre-clinical studies or clinical trials which could be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our products in those countries. We do not have any product candidates approved for sale in any jurisdiction, including in international markets, and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approvals in international markets are delayed, our target market will be reduced and our ability to realize the full market potential of any product we develop will be unrealized.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, costly, time-consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed. We cannot predict when or if, and in which territories, we, or any of our potential future collaborators, will obtain marketing approval to commercialize a product candidate.

The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that neither LYR-210, LYR-220 nor any future product candidates we may seek to develop in the future will ever obtain regulatory approval. Neither we nor any future collaborator is permitted to market any of our product candidates in the United States until we receive regulatory approval of an NDA from the FDA. It is possible that the FDA may refuse to accept for substantive review any NDAs that we submit for our product candidates or may conclude after review of our data that our application is insufficient to obtain marketing approval of our product candidates.

Prior to obtaining approval to commercialize a product candidate in the United States or abroad, we or our collaborators must demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA or foreign regulatory agencies, that such product candidates are safe and effective for their intended uses in patients. Results from non-clinical studies and clinical trials can be interpreted in different ways. Even if we believe the non-clinical or clinical data for our product candidates are promising, such data may not be sufficient to support approval by the FDA and other regulatory authorities. The FDA may also require us to conduct additional pre-clinical studies or clinical trials for our product candidates either prior to or post-approval, or it may object to elements of our clinical development program. Depending on the extent of these or any other FDA-required studies, approval of any NDA or other application that we submit may be delayed by several years, or may require us to expend significantly more resources than we have available.

Of the large number of potential products in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized. The lengthy and costly approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market our product candidates, which would significantly harm our business, results of operations and prospects.

Moreover, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA or comparable foreign regulatory authorities. The FDA or comparable foreign regulatory authorities may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected interpretation of the study. The FDA or comparable foreign regulatory authorities may therefore question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA or comparable foreign regulatory authorities, as the case may be, and may ultimately lead to the denial of marketing approval of one or more of our product candidates.

Separately, in response to the COVID-19 global pandemic, on March 10, 2020, the FDA announced its intention to postpone most inspections of foreign manufacturing facilities and products through April 2020. On March 18, 2020, the FDA announced its intention to temporarily postpone routine surveillance inspections of domestic manufacturing facilities. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic and provide guidance regarding the conduct of clinical trials. If global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews or other regulatory activities, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

If we encounter delays or difficulties enrolling patients in our clinical trials, our clinical development activities and receipt of regulatory approvals could be delayed or otherwise adversely affected.

The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the trial until its conclusion. Trials may be subject to delays as a result of patient enrollment taking longer than anticipated or patient withdrawal. We may encounter delays in enrolling, or be unable to enroll, a sufficient number of patients to complete any of our clinical trials, and even once enrolled we may be unable to retain a sufficient number of patients to complete any of our trials. We may not be able to initiate or continue 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 as required by the FDA or similar regulatory authorities outside the United States. We cannot predict how successful we will be at enrolling subjects in future clinical trials. The enrollment of patients depends on many factors, including:

- the patient eligibility criteria defined in the protocol;
- the size of the patient population required for analysis of the trial’s primary endpoints;
- the proximity of patients to trial sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- clinicians’ and patients’ perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new products that may be approved for the indications we are investigating;

- the perceived risks and benefits of the product candidate in the trial;
- the availability of alternative therapies;
- our ability to obtain and maintain patient consents;
- the risk that patients enrolled in clinical trials will drop out of the trials before completion; and
- the impact of the ongoing COVID-19 global pandemic.

In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials in such clinical trial site.

Delays or failures in planned patient enrollment or retention may result in increased costs, program delays or both, which could have a harmful effect on our ability to develop LYR-210, LYR-220 and/or any other future product candidates, or could render further development impossible.

Our product candidates may cause serious adverse events or undesirable side effects including injury and death or have other properties which may delay or prevent their regulatory approval, limit the commercial profile of an approved label, or, result in significant negative consequences following marketing approval, if any. If any of our product candidates receives marketing approval and we, or others, later discover that the drug is less effective than previously believed or causes undesirable side effects that were not previously identified, our ability, or that of any potential future collaborators, to market the drug could be compromised.

Before obtaining regulatory approvals for the commercial sale of our product candidates, we must demonstrate through lengthy, complex and expensive pre-clinical testing and clinical trials that our product candidates are both safe and effective for use in each target indication, and failures can occur at any stage of testing. Clinical trials often fail to demonstrate safety and efficacy of the product candidate studied for the target indication. Serious adverse events, or SAEs, or undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign authorities. Results of our clinical trials or pre-clinical studies could reveal a high and unacceptable severity and prevalence of side effects, toxicities or unexpected characteristics, including death. For example, in our Phase 1 clinical trial for our most advanced product candidate, LYR-210, there has been one SAE in the active group (acute myocardial infarction), which was considered not related to LYR-210. For more information, see "Business—LYR-210 for the Treatment of CRS—Overview of Our Clinical Development."

In addition, subjects treated with LYR-210 have experienced adverse events, including facial pain, nasopharyngitis, sinusitis, upper respiratory tract infection, procedural headache, nasal discomfort and nasal odor, among others.

If unacceptable side effects arise in the development of our product candidates, we, the FDA, the IRBs at the institutions in which our studies are conducted or DSMB, could materially modify, suspend or terminate our clinical trials or the FDA or comparable foreign regulatory authorities could order us to cease pre-clinical studies or clinical trials, require us to conduct additional animal or human studies regarding the safety and efficacy of our product candidates which we have not planned or anticipated, or deny approval of our product candidates for any or all targeted indications. Many product candidates that initially showed promise in early

stage testing have later been found to cause side effects that prevented further development of the product candidate. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. We currently train and expect to have to train medical personnel using our product candidates to understand the side effect profiles for our clinical trials and upon any commercialization of any of our product candidates. Inadequate training in recognizing or managing the potential side effects of our product candidates could result in patient injury or death. Any of these occurrences may harm our business, financial condition and prospects significantly.

If any of our product candidates receives marketing approval, and we or others later identify undesirable side effects caused by any such product, including during any long-term follow-up observation period recommended or required for patients who receive treatment using our products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product;
- we may be required to recall a product or change the way such product is administered to patients;
- additional restrictions may be imposed on the marketing of the particular product or the manufacturing processes for the product;
- regulatory authorities may require additional warnings on the label, such as a “black box” warning or contraindication;
- regulatory authorities may require long-term patient registries for the product;
- we may be required to implement a Risk Evaluation and Mitigation Strategy, or REMS, or create a medication guide outlining the risks of such side effects for distribution to patients;
- the product could become less competitive;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

There can be no assurance that we will resolve any issues related to any product-related adverse events to the satisfaction of the FDA or any regulatory agency in a timely manner or at all. Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects.

Changes in methods of product candidate manufacturing or formulation may result in additional costs or delay.

As product candidates proceed through pre-clinical studies to late-stage clinical trials towards potential approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods and formulation, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives. Any of these changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials conducted with the altered materials. Such changes may also require additional testing, FDA notification or FDA approval. This could delay completion of clinical trials, require the conduct of bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our product candidates and jeopardize our ability to commence sales and generate revenue.

Our insurance policies are expensive and protect us only from some business risks, which leaves us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include general liability, employment practices liability, property, auto, workers' compensation, umbrella, and directors' and officers' insurance.

Any additional product liability insurance coverage we acquire in the future, may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and in the future we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If we obtain marketing approval for LYR-210 and/or LYR-220, we intend to acquire insurance coverage to include the sale of commercial products; however, we may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. A successful product liability claim or series of claims brought against us could cause our share price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business, including preventing or limiting the development and commercialization of any product candidates we develop. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended.

We also expect that operating as a public company will 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 people to serve on our board of directors, our board committees or as executive officers. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our cash position and results of operations.

Our employees and independent contractors, including principal investigators, CROs, consultants, vendors, and any third parties we may engage in connection with research, development, regulatory, manufacturing, quality assurance and other pharmaceutical functions and commercialization may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.

Misconduct by our employees and independent contractors, including principal investigators, CROs, consultants, vendors, and any third parties we may engage in connection with research, development, regulatory, manufacturing, quality assurance and other pharmaceutical functions and commercialization, could include intentional, reckless or negligent conduct or unauthorized activities that violate: (i) the laws and regulations of the FDA, the European Medicines Agency, or the EMA, and other similar regulatory authorities, including those laws that require the reporting of true, complete and accurate information to such authorities; (ii) manufacturing standards; (iii) data privacy, security, fraud and abuse and other healthcare laws and regulations; or (iv) laws that require the reporting of true, complete and accurate financial information and data. Specifically, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws could also involve the improper use or misrepresentation of information obtained in the course of pre-clinical studies or clinical trials, creation of fraudulent data in pre-clinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and

prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with such laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid, other U.S. federal healthcare programs or healthcare programs in other jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, individual imprisonment, other sanctions, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations.

Our business and operations would suffer in the event of system failures.

Our computer systems, as well as those of our CROs and other contractors, vendors, suppliers and consultants, are vulnerable to damage from computer viruses, unauthorized access, natural disasters (including hurricanes), terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our product candidate development programs and our business. For example, the loss of pre-clinical studies or clinical trial data from completed, ongoing or planned trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of personal, confidential or proprietary information, we could incur liability and the further development of LYR-210, LYR-220 or any other product candidate could be delayed.

In the ordinary course of our business, we directly or indirectly collect and store sensitive data, including intellectual property, confidential information, pre-clinical and clinical trial data, proprietary business information, personal data and personally identifiable health information of our clinical trial subjects and employees, in our data centers and on our networks, or on those of third parties. The secure processing, maintenance and transmission of this information is critical to our operations. Despite our security measures, our information technology and infrastructure has been and, from time to time, may be vulnerable to attacks by hackers or internal bad actors, or breached due to employee error, a technical vulnerability, malfeasance or other disruptions. For example, companies have experienced an increase in phishing and social engineering attacks from third parties in connection with the COVID-19 global pandemic. Although, to our knowledge, we have not experienced any material security breach to date, any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, significant regulatory penalties, and such an event could disrupt our operations, damage our reputation, and cause a loss of confidence in us and our ability to conduct clinical trials, which could adversely affect our business reputation and delay our clinical development of our product candidates.

Risks Related to Healthcare Laws and Other Legal Compliance Matters

We will be subject to extensive and costly government regulation.

Product candidates employing our technology will be subject to extensive and rigorous domestic government regulation including regulation by the FDA, the Centers for Medicare and Medicaid Services, or CMS, other divisions of the United States Department of Health and Human Services, the United States Department of Justice, state and local governments, and their respective equivalents outside of the United States. The FDA regulates the research, development, pre-clinical and clinical testing, manufacture, safety, effectiveness, record-keeping, reporting, labeling, packaging, storage, approval, advertising, promotion, sale, distribution, import, and export of pharmaceutical products. If products employing our technologies are marketed abroad, they will also be subject to extensive regulation by foreign governments, whether or not they have

obtained FDA approval for a given product and its uses. Such foreign regulation may be equally or more demanding than corresponding United States regulation.

Government regulation substantially increases the cost and risk of researching, developing, manufacturing, and selling our products. The regulatory review and approval process, which includes pre-clinical testing and clinical trials of each product candidate, is lengthy, expensive, and uncertain. We or our collaborators must obtain and maintain regulatory authorization to conduct pre-clinical studies and clinical trials. We or our collaborators must obtain regulatory approval for each product we intend to market, and the manufacturing facilities used for the products must be inspected and meet legal requirements. Securing regulatory approval requires the submission of extensive pre-clinical and clinical data and other supporting information for each proposed therapeutic indication in order to establish the product's safety and efficacy, potency and purity, for each intended use. The development and approval process takes many years, requires substantial resources, and may never lead to the approval of a product.

Even if we are able to obtain regulatory approval for a particular product, the approval may limit the indicated medical uses for the product, may otherwise limit our ability to promote, sell, and distribute the product, may require that we conduct costly post-marketing surveillance, and/or may require that we conduct ongoing post-marketing studies. Material changes to an approved product, such as, for example, manufacturing changes or revised labeling, may require further regulatory review and approval. Once obtained, any approvals may be withdrawn, including, for example, if there is a later discovery of previously unknown problems with the product, such as a previously unknown safety issue.

If we, our collaborators, consultants, contract manufacturers, CROs or other vendors, fail to comply with applicable regulatory requirements at any stage during the regulatory process, such noncompliance could result in, among other things, delays in the approval of applications or supplements to approved applications; refusal of a regulatory authority, including the FDA, to review pending market approval applications or supplements to approved applications; warning letters; fines; import and/or export restrictions; product recalls or seizures; injunctions; total or partial suspension of production; civil penalties; withdrawals of previously approved marketing applications or licenses; recommendations by the FDA or other regulatory authorities against governmental contracts; and/or criminal prosecutions.

Enacted and future healthcare legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and could adversely affect our business.

In the United States, the EU and other jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes and proposed changes to the healthcare system that could prevent or delay marketing approval of our products in development, restrict or regulate post-approval activities involving any product candidates for which we obtain marketing approval, impact pricing and reimbursement and impact our ability to sell any such products profitably. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. In addition, new regulations and interpretations of existing healthcare statutes and regulations are frequently adopted.

In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the ACA, was enacted, which substantially changed the way healthcare is financed by both governmental and private insurers. Among the provisions of the ACA, those of greatest importance to the pharmaceutical and biotechnology industries include the following:

- an annual, non-deductible fee payable by any entity that manufactures or imports certain branded prescription drugs and biologic agents (other than those designated as orphan drugs), which is apportioned among these entities according to their market share in certain government healthcare programs;

- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;

- new requirements to report certain financial arrangements with physicians and teaching hospitals, including reporting "transfers of value" made or distributed to prescribers and other healthcare providers and reporting investment interests held by physicians and their immediate family members;

- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13.0% of the average manufacturer price for branded and generic drugs, respectively;

- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;

- extension of a manufacturer's Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;

- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;

- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and

- establishment of a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, the creation of the Independent Payment Advisory Board, which had been included as part of the provisions of the ACA, was repealed in February 2018. The current presidential administration and Congress will likely continue to seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the ACA. It is uncertain the extent to which any such changes may impact our business or financial condition.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011 resulted in aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2029 unless additional action is taken by Congress. The CARES Act, which was signed into law on March 27, 2020, and designed to provide financial support and resources to individuals and businesses affected by the COVID-19 global pandemic, suspended the 2% Medicare sequester from May 1, 2020, through December 31, 2020, and extended the sequester by one year, through 2030, in order to offset the added expense of the 2020 cancellation. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of 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 or any other similar laws introduced in the future may result in additional reductions in Medicare and other healthcare funding, which could negatively affect our customers and accordingly, our financial operations.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, such as bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, and review the relationship between pricing and manufacturer patient programs. The Trump administration's budget proposal for fiscal year 2020 contains further drug price control measures that could be enacted during the 2020 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. Further, the Trump administration released a "Blueprint", or plan, to lower drug prices and reduce out of pocket costs of drugs that contains 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. The Department of Health and Human Services 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. While any proposed measures will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. We expect that additional U.S. federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that the U.S. federal government will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Individual states in the United States have also 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. Legally-mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, results of operations, financial condition and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for our product candidates or put pressure on our product pricing.

In the EU, similar political, economic and regulatory developments may affect our ability to profitably commercialize our product candidates, if approved. In addition to continuing pressure on prices and cost containment measures, legislative developments at the EU or member state level may result in significant additional requirements or obstacles that may increase our operating costs. The delivery of healthcare in the EU, including the establishment and operation of health services and the pricing and reimbursement of medicines, is almost exclusively a matter for national, rather than EU, law and policy. National governments and health service providers have different priorities and approaches to the delivery of healthcare and the pricing and reimbursement of products in that context. In general, however, the healthcare budgetary constraints in most EU member states have resulted in restrictions on the pricing and reimbursement of medicines by relevant health service providers. Coupled with ever-increasing EU and national regulatory burdens on those wishing to develop and market products, this could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to commercialize our product candidates, if approved.

In markets outside of the United States and the EU, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies.

In addition, legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional

legislative changes will be enacted, or whether the FDA's regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action in the United States, the EU or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

Even if we receive regulatory approval of our product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense, and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, packaging, distribution, adverse event reporting, storage, recordkeeping, export, import, advertising and promotional activities for such product, among other things, will be subject to extensive and ongoing requirements of and review by the FDA, the EMA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, establishment registration and drug listing requirements, continued compliance with current good manufacturing practice, or cGMP, requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping and GCP requirements for any clinical trials that we conduct post-approval. In addition, the sponsor of an approved NDA is subject to periodic inspections and other FDA monitoring and reporting obligations, including obligations to monitor and report adverse events and other information such as the failure of a product to meet the specifications in the NDA. NDA sponsors must submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling, or manufacturing process. Application holders must also submit advertising and other promotional material to the FDA and report on ongoing clinical trials. The FDA may require changes in the labeling of already approved drug products and require that sponsors conduct post-marketing studies. 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.

Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, including the requirement to implement a REMS, 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 mitigation tools. If any of our product candidates receives marketing approval, the accompanying label may limit the approved use of our product, which could limit sales of the product.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of our approved products. In addition, advertising and promotional materials must comply with FDA rules in addition to other potentially applicable federal and state laws. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure they are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use, and if we market our products outside of their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the FDA's restrictions relating to the promotion of prescription products may also lead to

investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

The distribution of product samples to physicians must comply with the requirements of the FDCA. NDA sponsors must obtain FDA approval for product, manufacturing, and labeling changes, depending on the nature of the change. Depending on the circumstances, failure to meet these post-approval requirements can result in criminal prosecution, fines, injunctions, consent decrees of permanent injunction, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, or refusal to allow us to enter into supply contracts, including government contracts.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers or manufacturing processes, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on manufacturing such products;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters or holds on clinical trials;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure or detention; or
- injunctions or the imposition of civil or criminal penalties.

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 revenues. If regulatory sanctions are applied or if regulatory approval is withheld or withdrawn, the value of our company and our operating results will be adversely affected.

The FDA’s policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of LYR-210, LYR-220 and/or any other future product candidate. 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 which would adversely affect our business, prospects and ability to achieve or sustain profitability.

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. For example, certain policies of the Trump administration may impact our business and industry. Namely, the Trump administration has taken several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine regulatory and oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. It is difficult to predict how these requirements will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose constraints on FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted.

Changes in funding for the FDA and other government agencies could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical employees and stop critical activities.

Separately, in response to the COVID-19 global pandemic, on March 10, 2020 the FDA announced its intention to postpone most inspections of foreign manufacturing facilities and products through April 2020. On March 18, 2020, the FDA announced its intention to temporarily postpone routine surveillance inspections of domestic manufacturing facilities. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 global pandemic or issue guidance materially affecting the conduct of clinical trials. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, upon completion of this offering and in our operations as a public company, future government shutdowns or delays could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Our business operations and current and future relationships with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers will be subject to applicable healthcare regulatory laws, which could expose us to penalties.

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers, may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell and distribute our product candidates, if approved. Such laws include:

- the U.S. federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or providing any remuneration

(including any kickback, bribe, or certain rebate), 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, any good, facility, item or service, for which payment may be made, in whole or in part, under U.S. federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- the U.S. federal civil and criminal false claims laws, including the civil False Claims Act, which, among other things, impose criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the U.S. federal government, claims for payment or approval that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making a false statement to avoid, decrease or conceal an obligation to pay money to the U.S. federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;

- the federal civil monetary penalties laws, which impose civil fines for, among other things, the offering or transfer of remuneration to a Medicare or state healthcare program beneficiary if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state healthcare program, unless an exception applies;

- the U.S. federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items or services; similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and its implementing regulations, which also imposes certain obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information without appropriate authorization by covered entities subject to the rule, such as health plans, healthcare clearinghouses and healthcare providers as well as their business associates that perform certain services involving the use or disclosure of individually identifiable health information;

- the FDCA, which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;

- the U.S. Physician Payments Sunshine Act and its implementing regulations, which requires certain manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program to report annually to the government information related to certain payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by the physicians described above and their immediate family members;

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;

- analogous U.S. state laws and regulations, including: state anti-kickback and false claims laws, which may apply to our business practices, including but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payor, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information, which requires tracking gifts and other remuneration and items of value provided to healthcare professionals and entities; state and local laws that require the registration of pharmaceutical sales representatives; and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and

- similar healthcare laws and regulations in the EU and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of certain protected information, such as the General Data Protection Regulation, or the GDPR, which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the EU (including health data).

Ensuring that our internal operations and future business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices, including our relationships with physicians and other healthcare providers, some of whom are compensated in the form of stock options for consulting services provided, may not comply with current or future statutes, regulations, agency guidance or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental laws and regulations that may apply to us, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, exclusion from government-funded healthcare programs, such as Medicare and Medicaid or similar programs in other countries or jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, disgorgement, individual imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs and imprisonment, which could affect our ability to operate our business. Further, defending against any such actions can be costly, time-consuming and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired.

We are subject to governmental regulation and other legal obligations, particularly related to privacy, data protection and information security, and we are subject to consumer protection laws that regulate our marketing practices and prohibit unfair or deceptive acts or practices. Our actual or perceived failure to comply with such obligations could harm our business.

We are subject to diverse laws and regulations relating to data privacy and security, including, in the United States, HIPAA and, in the EU and the European Economic Area, or EEA, Regulation 2016/679, known as the GDPR. New privacy rules are being enacted in the United States and globally, and existing ones are being updated and strengthened. For example, on June 28, 2018, California enacted the California Consumer Privacy Act, or CCPA, which took effect on January 1, 2020. The CCPA creates individual privacy rights for California consumers and increases the privacy and security obligations of entities handling certain personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. Complying with these numerous, complex and often changing

regulations is expensive and difficult, and failure to comply with any privacy laws or data security laws or any security incident or breach involving the misappropriation, loss or other unauthorized use or disclosure of sensitive or confidential patient or consumer information, whether by us, one of our business associates or another third-party, could adversely affect our business, financial condition and results of operations, including but not limited to: investigation costs, material fines and penalties; compensatory, special, punitive and statutory damages; litigation; consent orders regarding our privacy and security practices; requirements that we provide notices, credit monitoring services and/or credit restoration services or other relevant services to impacted individuals; adverse actions against our licenses to do business; and injunctive relief. Furthermore, these rules are constantly changing; for example, the GDPR came into force in May 2018 changing the European regime. Before that, the US-EU Safe Harbor framework was declared invalid in 2015 and replaced with the EU-U.S. Privacy Shield framework which, along with other methods which permit transfer under European privacy law, are under ongoing review and subject to challenge.

The privacy laws in the EU have been significantly reformed. On May 25, 2018, the GDPR entered into force and became directly applicable in all EU member states. The GDPR implements more stringent operational requirements than its predecessor legislation. For example, the GDPR requires us to make more detailed disclosures to data subjects, requires disclosure of the legal basis on which we can process personal data, makes it harder for us to obtain valid consent for processing, will require the appointment of data protection officers when sensitive personal data, such as health data, is processed on a large scale, provides more robust rights for data subjects, introduces mandatory data breach notification through the EU, imposes additional obligations on us when contracting with service providers and requires us to adopt appropriate privacy governance including policies, procedures, training and data audit. If we do not comply with our obligations under the GDPR, we could be exposed to fines of up to the greater of €20 million or up to 4% of our total global annual revenue in the event of a significant breach. In addition, we may be the subject of litigation and/or adverse publicity, which could adversely affect our business, results of operations and financial condition.

We cannot assure you that our third-party service providers with access to our or our customers', suppliers', trial patients' and employees' personally identifiable and other sensitive or confidential information in relation to which we are responsible will not breach contractual obligations imposed by us, or that they will not experience data security breaches or attempts thereof, which could have a corresponding effect on our business, including putting us in breach of our obligations under privacy laws and regulations and/or which could in turn adversely affect our business, results of operations and financial condition. We cannot assure you that our contractual measures and our own privacy and security-related safeguards will protect us from the risks associated with the third-party processing, storage and transmission of such information.

We face potential liability related to the privacy of health information we obtain from clinical trials sponsored by us.

Most healthcare providers, including research institutions from which we obtain patient health information, are subject to privacy and security regulations promulgated under HIPAA, as amended by the HITECH. We are not currently classified as a covered entity or business associate under HIPAA and thus are not subject to its requirements or penalties. However, any person may be prosecuted under HIPAA's criminal provisions either directly or under aiding-and-abetting or conspiracy principles. Consequently, depending on the facts and circumstances, we could face substantial criminal penalties if we knowingly receive individually identifiable health information from a HIPAA-covered healthcare provider or research institution that has not satisfied HIPAA's requirements for disclosure of individually identifiable health information. In addition, we may maintain sensitive personally identifiable information, including health information, that we receive throughout the clinical trial process, in the course of our research collaborations, and directly from individuals (or their healthcare providers) who enroll in our patient assistance programs. As such, we may be subject to state laws requiring notification of affected individuals and state regulators in the event of a breach of personal information, which is a broader class of information than the health information protected by HIPAA. Our clinical trial programs outside the United States may implicate international data protection laws, including the EU Data Protection Directive and legislation of the EU member states implementing it.

Our activities outside the United States impose additional compliance requirements and generate additional risks of enforcement for noncompliance. Failure by our CROs and other third-party contractors to comply with the strict rules on the transfer of personal data outside of the European Union into the United States may result in the imposition of criminal and administrative sanctions on such collaborators, which could adversely affect our business. Furthermore, certain health privacy laws, data breach notification laws, consumer protection laws and genetic testing laws may apply directly to our operations and/or those of our collaborators and may impose restrictions on our collection, use and dissemination of individuals' health information. Moreover, patients about whom we or our collaborators obtain health information, as well as the providers who share this information with us, may have statutory or contractual rights that limit our ability to use and disclose the information. We may be required to expend significant capital and other resources to ensure ongoing compliance with applicable privacy and data security laws. Claims that we have violated individuals' privacy rights or breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

If we or third-party CMOs, CROs or other contractors or consultants fail to comply with applicable federal, state or local regulatory requirements, we could be subject to a range of regulatory actions that could affect our or our contractors' ability to develop and commercialize our product candidates and could harm or prevent sales of any affected products that we are able to commercialize, or could substantially increase the costs and expenses of developing, commercializing and marketing our products. Any threatened or actual government enforcement action could also generate adverse publicity and require that we devote substantial resources that could otherwise be used in other aspects of our business. Increasing use of social media could give rise to liability, breaches of data security or reputational damage.

We are subject to environmental, health and safety laws and regulations, and we may become exposed to liability and substantial expenses in connection with environmental compliance or remediation activities.

Our operations, including our development, testing and manufacturing activities, are subject to numerous environmental, health and safety laws and regulations. These laws and regulations govern, among other things, the controlled use, handling, release and disposal of and the maintenance of a registry for, hazardous materials and biological materials, such as chemical solvents, human cells, carcinogenic compounds, mutagenic compounds and compounds that have a toxic effect on reproduction, laboratory procedures and exposure to blood-borne pathogens. If we fail to comply with such laws and regulations, we could be subject to fines or other sanctions.

As with other companies engaged in activities similar to ours, we face a risk of environmental liability inherent in our current and historical activities, including liability relating to releases of or exposure to hazardous or biological materials. Environmental, health and safety laws and regulations are becoming more stringent. We may be required to incur substantial expenses in connection with future environmental compliance or remediation activities, in which case, the production efforts of our third-party manufacturers or our development efforts may be interrupted or delayed.

We and our employees are increasingly utilizing social media tools as a means of communication both internally and externally.

Despite our efforts to monitor evolving social media communication guidelines and comply with applicable rules, there is risk that the use of social media by us or our employees to communicate about our product candidates or business may cause us to be found in violation of applicable requirements. In addition, our employees may knowingly or inadvertently make use of social media in ways that may not comply with our policies and other legal or contractual requirements, which may give rise to liability, lead to the loss of trade secrets or other intellectual property or result in public exposure of personal information of our employees, clinical trial patients, customers and others. Furthermore, negative posts or comments about us or our product candidates in social media could seriously damage our reputation, brand image and goodwill. Any of these events

could have a material adverse effect on our business, prospects, operating results and financial condition and could adversely affect the price of our common stock.

Risks Related to Commercialization

Developments by competitors may render our products or technologies obsolete or non-competitive or may reduce the size of our markets.

Our industry has been characterized by extensive research and development efforts, rapid developments in technologies, intense competition and a strong emphasis on proprietary products. We face potential competition from many different sources, including pharmaceutical, biotechnology and specialty pharmaceutical companies either marketing or developing therapeutics to treat CRS. Academic research institutions, governmental agencies, as well as public and private institutions are also potential sources of competitive products and technologies. Our competitors may have or may develop superior technologies or approaches, which may provide them with competitive advantages. Our potential products may not compete successfully. If these competitors access the marketplace before we do with better or less expensive therapeutics, our product candidates, if approved for commercialization, may not be profitable to sell or worthwhile to continue to develop. Technology in the pharmaceutical industry has undergone rapid and significant change, and we expect that it will continue to do so. Any compounds, products or processes that we develop may become obsolete or uneconomical before we recover any expenses incurred in connection with their development. The success of our product candidates will depend upon factors such as product efficacy, safety, reliability, availability, timing, scope of regulatory approval, acceptance and price, among other things. Other important factors to our success include speed in developing product candidates, completing clinical development and laboratory testing, obtaining regulatory approvals and manufacturing and selling commercial quantities of potential products.

Our product candidates are intended to compete directly or indirectly with existing products and treatments. Even if approved and commercialized, our product candidates may fail to achieve market acceptance with hospitals, physicians or patients. Hospitals, physicians or patients may conclude that our potential products are less safe or effective or otherwise less attractive than these existing drugs. If our product candidates do not receive market acceptance for any reason, our revenue potential would be diminished, which would materially adversely affect our ability to become profitable.

Significant competition exists in the treatment of CRS. We will need to compete with all currently available or future therapies within the indications where our development is focused. LYR-210, if approved and commercialized, will face significant competition. The main classes of marketed products that are available for the treatment of CRS include nasal saline irrigation, intranasal corticosteroidal sprays and antibiotics, as well as surgical intervention. In addition, one company is currently marketing, and several companies are also currently developing, biologic monoclonal antibodies, or mAbs, for the treatment of nasal polyps. If these biologic mAbs are successfully developed and approved for marketing, they could represent competition for LYR-220 for the segment of patients that have polyps. Finally, one company is developing an oral DP-2 antagonist currently in Phase 2 clinical trials for CRS patients that could represent competition across the spectrum of CRS patients.

There are a number of companies developing or marketing therapies for the treatment and management of CRS that may compete with our current product candidates, including many major pharmaceutical and biotechnology companies. These companies include, among others: Hoffman-La Roche, GlaxoSmithKline, Gossamer Bio, AnaptysBio, Regeneron, OptiNose and Intersect ENT.

Most of our competitors, including many of those listed above, have substantially greater capital resources, robust product candidate pipelines, established presence in the market and expertise in research and development, manufacturing, pre-clinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products than we do. As a result, our competitors may achieve product commercialization or patent protection earlier than we can. Smaller or early-stage companies may also prove to

be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified clinical, regulatory, scientific, sales, marketing and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient, or are less expensive than any products that we may develop or that would render any products that we may develop obsolete or noncompetitive.

The successful commercialization of our product candidates will depend in part on the extent to which governmental authorities and health insurers establish coverage, adequate reimbursement levels and pricing policies. Failure to obtain or maintain coverage and adequate reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate revenue.

The availability of coverage and adequacy of reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers and other third-party payors are essential for most patients to be able to afford medical services and pharmaceutical products such as our product candidates, assuming FDA approval. Our ability to achieve acceptable levels of coverage and reimbursement for our products or procedures using our products by governmental authorities, private health insurers and other organizations will have an effect on our ability to successfully commercialize our product candidates. Obtaining coverage and adequate reimbursement for our products may be particularly difficult because of the higher prices often associated with drugs administered under the supervision of a physician. Separate reimbursement for the product itself or the treatment or procedure in which our product is used may not be available. A decision by a third-party payor not to cover or separately reimburse for our products or procedures using our products, could reduce physician utilization of our products once approved. Assuming there is coverage for our product candidates or procedures using our product candidates 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 are unlikely to use our product candidates unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our product candidates. Similarly, our product candidates are physician-administered treatments and as such, separate reimbursement for the product itself may or may not be available. Instead, the hospital or administering physician may be reimbursed only for providing the treatment or procedure in which our product is used. To the extent separate coverage and reimbursement should become available for LYR-210, we anticipate that it will be sold to physicians on a “buy and bill” basis. Buy and bill products must be purchased by healthcare providers before they can be administered to patients. Healthcare providers subsequently must seek reimbursement for the product from the applicable third-party payor, such as Medicare or a health insurance company. Healthcare providers may be reluctant to administer our product candidates, if approved, because they would have to fund the purchase of the product and then seek reimbursement, which may be lower than their purchase price, or because they do not want the additional administrative burden required to obtain reimbursement for the product.

Further, the status of reimbursement codes for any of our product candidates, if approved, could also affect reimbursement. J-Codes and Q-Codes are reimbursement codes maintained by the Centers for Medicare and Medicaid Services, or CMS, that are a component of the Healthcare Common Procedure Coding System and are typically used to report injectable drugs that ordinarily cannot be self-administered. We currently do not have a specific J-Code or Q-Code for any of our product candidates. If our product candidates are approved, we may apply for one but cannot guarantee that a J-Code or Q-Code will be granted. To the extent separate coverage or reimbursement is available for any product candidate, if approved, and a specific J-Code or Q-Code is not available, physicians would need to use a non-specific miscellaneous J-Code to bill third-party payors for these physician-administered drugs. Because miscellaneous J-Codes may be used for a wide variety of products, health plans may have more difficulty determining the actual product used and billed for the patient. These claims must often be submitted with additional information and manually processed, which can delay claims processing times as well as increase the likelihood for claim denials and claim errors. We cannot be sure that coverage and

reimbursement in the United States, the EU or elsewhere will be available for our product candidates or any product that we may develop, and any reimbursement that may become available may not be adequate or may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for pharmaceutical products and services, and many third-party payors may refuse to provide coverage and reimbursement for particular drugs and biologics when an equivalent generic drug, biosimilar or a less expensive therapy is available. It is possible that a third-party payor may consider our product candidates as substitutable and only offer to reimburse patients for the less expensive product. Even if we show improved efficacy or improved convenience of administration with our product candidates, pricing of existing third-party therapeutics may limit the amount we will be able to charge for our product candidates. These payors may deny or revoke the reimbursement status of a given product or establish prices for new or existing marketed products at levels that are too low to enable us to realize an appropriate return on our investment in our product candidates. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates, and may not be able to obtain a satisfactory financial return on our product candidates.

There is significant uncertainty related to the insurance coverage and reimbursement of newly-approved products. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs and biologics will be covered. The Medicare and Medicaid programs increasingly are used as models in the United States for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative drug therapies before they will reimburse healthcare providers who use such therapies. We cannot predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases on short notice, and we believe that changes in these rules and regulations are likely.

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in the EU and other jurisdictions have and will continue to put pressure on the pricing and usage of our product candidates. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. Other countries allow companies to fix their own prices for medical products, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our product candidates may be reduced compared with the United States and may be insufficient to generate commercially-reasonable revenue and profits.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of our product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and biologics and surgical procedures and other treatments, has become intense. As a result, increasingly high barriers are being erected to the entry of new products.

Our clinical studies were designed to demonstrate the safety and efficacy of LYR-210 based on FDA requirements and may not be seen as compelling to physicians or patients.

Our success depends on the medical community's acceptance of LYR-210, if approved, as a treatment for CRS patients. LYR-210 was previously studied in an open-label, Phase 1 clinical trial with 20 patients in New Zealand and Australia, which achieved its primary endpoint of safety at week 4. In the Phase 1 trial, we also observed that patients generally experienced significant and rapid, clinically meaningful and durable improvement in SNOT-22 scores. Significant reduction in SNOT-22 scores was observed at week 1, and this reduction persisted through week 25, which was the end of the trial. While the results of this early clinical trial suggest a favorable safety and efficacy profile, the study design and results, and the design and results of future clinical trials we conduct, may not be viewed as compelling to our physician customers or patients. If physicians do not find our data compelling, even if LYR-210 receives marketing approval they may choose not to use our products or limit their use. We cannot assure you that any data that we or others generate will be consistent with that observed in the Phase 1 clinical trial of LYR-210, nor that results will be maintained beyond the time points studied. We also cannot assure you that any data that may be collected will be compelling to the medical community because the data may not be clinically meaningful and may not demonstrate that LYR-210 is an attractive procedure when compared against data from alternative treatments.

Even if either LYR-210 or LYR-220 receives marketing approval, it may fail to achieve market acceptance by physicians, patients, third-party payors or others in the medical community necessary for commercial success.

If either LYR-210 or LYR-220 receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. If it does not achieve an adequate level of acceptance, we may not generate significant product revenues or become profitable. The degree of market acceptance of LYR-210 or LYR-220, if approved for commercial sale, will depend on a number of factors, including but not limited to:

- perceptions by members of the healthcare community, including physicians, about the safety and effectiveness of our platform;
- the perception by members of the healthcare community, including physicians, or patients that the process of administering LYR-210 or LYR-220, is not unduly cumbersome;
- the efficacy and potential advantages compared to alternative treatments;
- effectiveness of sales and marketing efforts;
- the cost of treatment in relation to alternative treatments;
- our ability to offer our products for sale at competitive prices;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the timing of market introduction of competitive products;
- the availability of third-party coverage and adequate reimbursement;

- product labeling or product insert requirements of the FDA, the EMA or other regulatory authorities, including any limitations or warnings contained in a product's approved labeling;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our product together with other medications.

If our product candidates are approved, but do not achieve an adequate level of acceptance by physicians, healthcare payors, and patients, we may not generate sufficient revenue from these products, and we may not be able to achieve or sustain profitability. Our efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful. In addition, our ability to successfully commercialize our product candidates will depend on our ability to manufacture our products through third-party manufacturers, differentiate our products from competing products and defend the intellectual property of our products.

Because we expect sales of LYR-210, if approved, to generate substantially all of our product revenues for a substantial period, the failure of this product to find market acceptance would harm our business and could require us to seek additional financing.

If physicians or patients are not willing to change current practices and adopt our office-based administration procedure for LYR-210 and LYR-220, our products may fail to gain market acceptance, and our business will be harmed.

Our initial product candidates, LYR-210 and LYR-220, are bioresorbable polymeric matrices designed to be administered in a brief, non-invasive, in-office procedure by an ENT physician under endoscopic visualization via a single-use applicator. While we believe ENT physicians will be able to administer our product candidates, if successfully developed and approved, in conjunction with an endoscopy procedure, thereby making the placement aligned with the existing care continuum for CRS patients and eliminating the need for ENT physicians to schedule separate surgical time, ENT physicians may not adopt our in-office procedure for a number of reasons, including:

- lack of significant experience with the placement procedure via a single-use applicator;
- lack of availability of adequate insurance coverage or reimbursement for the placement procedure;
- perceived inadequacy of evidence supporting clinical benefits or cost-effectiveness of the placement procedure and/or our products in general over existing alternatives;
- a perception that patients may be unable to tolerate the placement procedure in the physician office setting; and
- liability risks generally associated with the use of new products and procedures.

If ENT physicians do not adopt the placement procedure for any reason, including those listed above, our ability to grow our business would be impaired, even if LYR-210 and LYR-220 receive marketing approval.

We believe recommendations and support of our products by notable ENT physicians could influence market acceptance and adoption. If we do not receive support from influential ENT physicians, our ability to achieve broad market acceptance for our products may be impaired.

In addition, if patient receptivity toward treatment in an ENT physician office setting becomes less favorable in the future, this shift could negatively impact market acceptance of our products. Any negative change due to patient receptivity could also be compounded by patients reporting to physicians or other patients through word-of-mouth or social media.

Additionally, while it is currently more cost-effective to the healthcare system for providers to perform the placement procedure in an ENT physician's office than a FESS procedure in an operating room, healthcare economics are subject to change. If the use of our products were to cease being more cost-effective than FESS due to changes in reimbursement economics, our products may fail to gain market acceptance, our future growth would be limited and our business may be adversely affected.

If we are unable to establish sales, marketing and distribution capabilities either on our own or in collaboration with third parties, we may not be successful in commercializing LYR-210 or LYR-220, if approved, and we may not be able to generate any revenue.

We do not have any infrastructure for the sales, marketing or distribution of our products, and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so.

We expect to build our own focused sales, distribution and marketing infrastructure to market LYR-210 and LYR-220 in the United States, if approved. There are significant expenses and risks involved with establishing our own sales, marketing and distribution capabilities, including our ability to hire, retain and appropriately incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel, and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities could delay any product launch, which would adversely impact the commercialization of LYR-210. Additionally, if the commercial launch of LYR-210 or LYR-220 for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our product candidates on our own include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future products;
- our inability to equip medical and sales personnel with effective materials, including medical and sales literature to help them educate physicians and other healthcare providers regarding applicable diseases and our future products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines;
- our inability to develop or obtain sufficient operational functions to support our commercial activities; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

We do not anticipate having the resources in the foreseeable future to allocate to the sales and marketing of LYR-210, LYR-220 or any future product candidates in markets outside of the United States. Therefore, our future sales in these markets will largely depend on our ability to enter into and maintain collaborative relationships for such capabilities, the collaborator's strategic interest in the product and such collaborator's ability to successfully market and sell the product. We intend to selectively pursue collaborative arrangements regarding the sale and marketing of LYR-210, if approved, for certain markets outside of the United States; however, we cannot assure that we will be able to establish or maintain such collaborative arrangements, or if able to do so, that they will have effective sales forces.

If we are unable to build our own sales force or negotiate a collaborative relationship for the commercialization of LYR-210 or LYR-220, we may be forced to delay the potential commercialization of LYR-210 or LYR-220 or reduce the scope of our sales or marketing activities for LYR-210 or LYR-220. If we elect to increase our expenditures to fund commercialization activities ourselves, we will need to obtain additional capital, which may not be available to us on acceptable terms, or at all. We could enter into arrangements with collaborative partners at an earlier stage than otherwise would be ideal and we may be required to relinquish rights to LYR-210 or LYR-220 or otherwise agree to terms unfavorable to us, any of which may have an adverse effect on our business, operating results and prospects.

If we are unable to establish adequate sales, marketing and distribution capabilities, either on our own or in collaboration with third parties, we will not be successful in commercializing LYR-210 or LYR-220 and may not become profitable and may incur significant additional losses. We will be competing with many companies that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

Our future growth may depend, in part, on our ability to penetrate foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future profitability may depend, in part, on our ability to commercialize our product candidates in foreign markets for which we may rely on collaboration with third parties. We are evaluating the opportunities for the development and commercialization of our product candidates in foreign markets. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the applicable regulatory authority in that foreign market, and we may never receive such regulatory approval for any of our product candidates. To obtain separate regulatory approvals in other countries we may be required to comply with numerous and varying regulatory requirements of such countries regarding the safety and efficacy of our product candidates and governing, among other things, clinical trials and commercial sales, pricing and distribution of our product candidates, and we cannot predict success in these jurisdictions. If we obtain approval of our product candidates and ultimately commercialize our product candidates in foreign markets, we would be subject to additional risks and uncertainties, including:

- our customers' ability to obtain reimbursement for our product candidates in foreign markets;
- our inability to directly control commercial activities if we are relying on third parties;
- the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements;
- different medical practices and customs in foreign countries affecting acceptance in the marketplace;
- import or export licensing requirements;
- longer accounts receivable collection times;
- longer lead times for shipping;
- language barriers for technical training and the need for language translations;
- reduced protection of intellectual property rights in some foreign countries;
- the existence of additional potentially relevant third-party intellectual property rights;

- foreign currency exchange rate fluctuations; and
- the interpretation of contractual provisions governed by foreign laws in the event of a contract dispute.

Foreign sales of our product candidates could also be adversely affected by the imposition of governmental controls, political and economic instability, trade restrictions and changes in tariffs.

In some countries, particularly the countries in Europe, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a drug. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

The sizes of the patient populations that our product candidates are intended to treat have not been established with precision. If the market opportunities for our product candidates are smaller than we estimate, or if any approval that we obtain is based on a narrower definition of the patient population than we anticipate, our revenue and ability to achieve profitability may be materially adversely affected.

The precise incidence and prevalence of the conditions we aim to address with our programs is unknown and cannot be precisely determined. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our product candidates, are based on beliefs and estimates. These estimates have been derived from a variety of sources, including the scientific literature, surveys of clinics, patient foundations or market research, and may prove to be incorrect. Further, new information may change the estimated incidence or prevalence of these diseases, and the incidence or prevalence of these diseases is subject to change.

The total addressable market across all of our product candidates will ultimately depend upon, among other things, the indications and conditions of use for which the product candidates are approved and may be marketed, acceptance by the medical community and patient access, drug pricing and reimbursement. The sizes of the patient populations that our product candidates are intended to treat in the United States and other major markets and elsewhere may turn out to be smaller than expected, patients may not be otherwise amenable to treatment with our product candidates or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business. Further, even if we obtain significant market share for our product candidates, we may never achieve profitability despite obtaining such significant market share.

If we cannot compete for market share against other drug companies, we may not achieve sufficient product revenues and our business will suffer.

If our product candidates receive FDA approval, they will compete with a number of existing and future drugs and therapies developed, manufactured and marketed by other companies. Existing or future competing products may provide greater therapeutic convenience or clinical or other benefits for a specific indication than our products, or may offer comparable performance at a lower cost. If our products fail to capture and maintain market share, we may not achieve sufficient product revenues and our business will suffer.

We will compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors may have compounds already approved or in development in the therapeutic categories that we are targeting with our current and future product candidates. In addition, many of these competitors, either alone or together with their collaborative partners, may operate larger

research and development programs or have substantially greater financial resources than we do, as well as greater experience in:

- developing product candidates;
- undertaking pre-clinical testing and clinical trials;
- obtaining NDA approval by the FDA and comparable foreign regulatory approvals of product candidates;
- formulating and manufacturing products; and
- launching, marketing and selling products.

If we obtain approval to commercialize any products outside of the United States, a variety of risks associated with international operations could materially adversely affect our business.

If either LYR-210 or LYR-220 is approved for commercialization, we intend to selectively partner with third parties to market it in certain jurisdictions outside the United States. We expect that we will be subject to additional risks related to international pharmaceutical operations, including:

- different regulatory requirements for drug approvals and rules governing drug commercialization in foreign countries;
- reduced protection for intellectual property rights;
- foreign reimbursement, pricing and insurance regimes;
- potential noncompliance with the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act 2010 and similar anti-bribery and anticorruption laws in other jurisdictions; and
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad.

We have no prior experience in these areas. In addition, there are complex regulatory, tax, labor and other legal requirements imposed by both the European Union and many of the individual countries in Europe with which we will need to comply. Many U.S.-based biotechnology companies have found the process of marketing their own products in Europe to be very challenging.

Certain legal and political risks are also inherent in foreign operations. For example, it may be more difficult for us to enforce our agreements or collect receivables through foreign legal systems. There is a risk that foreign governments may nationalize private enterprises in certain countries where we may operate. In certain countries or regions, terrorist activities and the response to such activities may threaten our operations more than in the United States. Social and cultural norms in certain countries may not support compliance with our corporate policies including those that require compliance with substantive laws and regulations. Also, changes in general economic and political conditions in countries where we may operate are a risk to our financial performance and future growth. Additionally, the need to identify financially and commercially strong partners for commercialization outside the United States who will comply with the high manufacturing and legal and regulatory compliance standards we require is a risk to our financial performance. As we operate our business globally, our success will depend, in part, on our ability to anticipate and effectively manage these and other related risks. There can be no assurance that the consequences of these and other factors relating to our international operations will not have an adverse effect on our business, financial condition or results of operations.

Potential product liability lawsuits against us could cause us to incur substantial liabilities and limit commercialization of any products that we may develop.

The use of our product candidates, including LYR-210 and LYR-220, in clinical trials and the sale of any products for which we obtain marketing approval exposes us to the risk of product liability claims. For example, complications arising from the placement procedure for LYR-210 or LYR-220, or from the degradation or dislodgment of the LYR-210 or LYR-220 polymeric matrix within the sinuses after placement, or from foreign growth occurring in the sinus after placement, could give rise to product liability claims against us. Product liability claims might be brought against us by consumers, healthcare providers, pharmaceutical companies or others selling or otherwise coming into contact with our products. On occasion, large judgments have been awarded in class action lawsuits based on products that had unanticipated adverse effects. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs, which may not be covered by insurance. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of our business reputation and significant negative media attention;
- withdrawal of participants from our clinical trials;
- significant costs to defend the related litigation and related litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- inability to commercialize LYR-210 or LYR-220 or any other product candidate;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- decreased demand for LYR-210 or LYR-220 or any other product candidate, if approved for commercial sale; and
- loss of revenue.

Risks Related to Our Dependence on Third Parties

We will rely on third parties for the manufacture of materials for our research programs, pre-clinical studies and clinical trials and we do not have long-term contracts with any of these parties. This reliance on third parties increases the risk that we will not have sufficient quantities of such materials, product candidates, or any therapies that we may develop and commercialize, or that such supply will not be available to us at an acceptable cost, which could delay, prevent, or impair our development or commercialization efforts.

Although we currently conduct certain manufacturing operations internally, we currently have no plans to build our own clinical or commercial scale manufacturing capabilities. Instead, we expect to rely on third parties for the manufacture of our product candidates and related raw materials for future pre-clinical and clinical development, as well as for commercial manufacture if any of our product candidates receive marketing approval. We do not have a long-term agreement with any of the third-party manufacturers we currently use to provide pre-clinical and clinical drug supply, and purchase any required materials on a purchase order basis. Certain of these manufacturers are critical to our production and the loss of these manufacturers to one of our competitors or otherwise, or an inability to obtain quantities at an acceptable cost or quality, could delay, prevent or impair our ability to timely conduct pre-clinical studies or clinical trials, and would materially and adversely affect our development and commercialization efforts. The facilities used by third-party manufacturers to manufacture our product candidates must be approved by the FDA pursuant to inspections that will be conducted

after we submit an NDA to the FDA. We do not control the manufacturing process of, and are completely dependent on, third-party manufacturers for compliance with cGMP requirements for manufacture of drug products and other laws and regulations. If these third-party manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. Some of our contract manufacturers may not have produced a commercially-approved product and therefore may not have obtained the requisite FDA approvals to do so. In addition, we have no control over the ability of third-party manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved.

Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products. In addition, we may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms.

Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- failure of third-party manufacturers to comply with regulatory requirements and maintain quality assurance;
- breach of the manufacturing agreement by the third party;
- failure to manufacture our product according to our specifications;
- failure to manufacture our product according to our schedule or at all;
- misappropriation of our proprietary information, including our trade secrets and know-how; and
- termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us. Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval, and any related remedial measures may be costly or time-consuming to implement. We do not currently have arrangements in place for redundant supply or a second source for all required raw materials used in the manufacture of our product candidates. The extent to which the COVID-19 global pandemic impacts our ability to procure sufficient supplies for the development of our products and product candidates will depend on the severity and duration of the spread of the virus, and the actions undertaken to contain COVID-19 or treat its effects and may cause delays. If our current third-party manufacturers cannot perform as agreed, we may be required to replace such manufacturers and we may be unable to replace them on a timely basis or at all. Our current and anticipated future dependence upon others for the manufacture of our product candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

We rely on third parties to conduct our pre-clinical studies and clinical trials. Any failure by a third party to conduct the clinical trials according to GCPs and in a timely manner may delay or prevent our ability to seek or obtain regulatory approval for or commercialize our product candidates.

We are dependent on third parties to conduct our pre-clinical studies and clinical trials, including our ongoing clinical trials for LYR-210, and we expect to rely on third parties to conduct any future clinical trials and pre-clinical studies for our product candidates, including LYR-220. Specifically, we have used and relied on, and intend to continue to use and rely on, medical institutions, clinical investigators, CROs and consultants to conduct our clinical trials in accordance with our clinical protocols and regulatory requirements. These CROs, investigators and other third parties play a significant role in the conduct and timing of these trials and subsequent collection and analysis of data. While we have agreements governing the activities of our third-party contractors, we have limited influence over their actual performance. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on the CROs and other third parties does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for all of our product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs or trial sites fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable, and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

There is no guarantee that any such CROs, investigators or other third parties will devote adequate time and resources to such trials or perform as contractually required. If any of these third parties fail to meet expected deadlines, adhere to our clinical protocols or meet regulatory requirements, or otherwise performs in a substandard manner, our clinical trials may be extended, delayed or terminated. In addition, many of the third parties with whom we contract may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities that could harm our competitive position. In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the trial, the integrity of the data generated at the applicable clinical trial site may be questioned, and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection of any NDA we submit to the FDA. Any such delay or rejection could prevent us from commercializing our product candidates.

If any of our relationships with these third-parties terminate, we may not be able to enter into arrangements with alternative third parties or do so on commercially reasonable terms. Switching or adding additional CROs, investigators and other third parties involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. The COVID-19 global pandemic and government measures taken in response have also had a significant impact on our CROs, and we expect that they will face further disruption which may affect our ability to initiate and complete our pre-clinical studies and clinical trials. Though we carefully manage our relationships with our CROs, investigators and other third parties, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

We may collaborate with third parties for the development and commercialization of LYR-210, LYR-220 and any of our future product candidates. We may not succeed in establishing and maintaining collaborative relationships, which may significantly limit our ability to develop and commercialize LYR-210, LYR-220 or our future product candidates successfully, if at all.

We may seek collaborative relationships for the development and commercialization of LYR-210, LYR-220 or any future product candidates. Failure to obtain a collaborative relationship for LYR-210, LYR-220 or any future product candidates may significantly impair the potential for these product candidates. We also may need to enter into collaborative relationships to provide funding to support our other research and development programs. The process of establishing and maintaining collaborative relationships is difficult, time-consuming and involves significant uncertainty, such as:

- a collaboration partner may shift its priorities and resources away from our product candidates due to a change in business strategies, or a merger, acquisition, sale or downsizing;
- a collaboration partner may seek to renegotiate or terminate their relationships with us due to unsatisfactory clinical results, manufacturing issues, a change in business strategy, a change of control or other reasons;
- a collaboration partner may cease development in therapeutic areas which are the subject of our strategic collaboration;
- a collaboration partner may not devote sufficient capital or resources towards our product candidates;
- a collaboration partner may change the success criteria for a product candidate, thereby delaying or ceasing development of such candidate;
- a significant delay in initiation of certain development activities by a collaboration partner will also delay payment of milestones tied to such activities, thereby impacting our ability to fund our own activities;
- a collaboration partner could develop a product that competes, either directly or indirectly, with our product candidate;
- a collaboration partner with commercialization obligations may not commit sufficient financial or human resources to the marketing, distribution or sale of a product;
- a collaboration partner with manufacturing responsibilities may encounter regulatory, resource or quality issues and be unable to meet demand requirements;
- a collaboration partner may terminate a strategic alliance;
- a dispute may arise between us and a partner concerning the research, development or commercialization of a product candidate resulting in a delay in milestones, royalty payments or termination of an alliance and possibly resulting in costly litigation or arbitration which may divert management attention and resources; and
- a partner may use our products or technology in such a way as to invite litigation from a third party.

If any collaborator fails to fulfill its responsibilities in a timely manner, or at all, our research, clinical development, manufacturing or commercialization efforts related to that collaboration could be delayed or

terminated, or it may be necessary for us to assume responsibility for expenses or activities that would otherwise have been the responsibility of our collaborator. If we are unable to establish and maintain collaborative relationships on acceptable terms or to successfully transition terminated collaborative agreements, we may have to delay or discontinue further development of one or more of our product candidates, undertake development and commercialization activities at our own expense or find alternative sources of capital. Moreover, any collaborative partners we enter into agreements with in the future may shift their priorities and resources away from our product candidates or seek to renegotiate or terminate their relationships with us.

If we seek, but are not able to establish, collaborations, we may have to alter our development and commercialization plans.

Our product development programs and the potential commercialization of our product candidates will require substantial additional capital. We may decide to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of our product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or comparable regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of such product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate revenue.

Data provided by collaborators and others upon which we rely that has not been independently verified could turn out to be false, misleading, or incomplete.

We rely on third-party vendors, such as CROs, scientists and collaborators to provide us with significant data and other information related to our projects, pre-clinical studies or clinical trials and our business. If such third parties provide inaccurate, misleading or incomplete data, our business, prospects and results of operations could be materially adversely affected.

We do not have multiple sources of supply for some of the components used in LYR-210 or LYR-220, nor long-term supply contracts, and certain of our suppliers are critical to our production. If we were to lose a supplier, it could have a material adverse effect on our ability to complete the development of LYR-210 or LYR-220. If we obtain regulatory approval for LYR-210 or LYR-220, we would need to expand the supply of their components in order to commercialize them.

We do not have multiple sources of supply for the components used in the manufacturing of LYR-210 or LYR-220. We also do not have long-term supply agreements with any of our component suppliers. We may not be able to establish additional sources of supply for our product candidates, or may be unable to do so on acceptable terms. Manufacturing suppliers are subject to cGMP quality and regulatory requirements, covering manufacturing, testing, quality control and record keeping relating to our product candidates and subject to ongoing inspections by the regulatory agencies. Failure by any of our suppliers to comply with applicable regulations may result in long delays and interruptions in supply. Manufacturing suppliers are also subject to local, state and federal regulations and licensing requirements. Failure by any of our suppliers to comply with all applicable regulations and requirements may result in long delays and interruptions in supply.

The number of suppliers of the raw material components of our product candidates is limited. In the event it is necessary or desirable to acquire supplies from alternative suppliers, we might not be able to obtain them on commercially reasonable terms, if at all. It could also require significant time and expense to redesign our manufacturing processes to work with another company. Additionally, certain of our suppliers are critical to our production and the loss of these suppliers to one of our competitors or otherwise would materially and adversely affect our development and commercialization efforts.

As part of any marketing approval, regulatory authorities conduct inspections that must be successful prior to the approval of the product. Failure of manufacturing suppliers to successfully complete these regulatory inspections will result in delays. If supply from the approved supplier is interrupted, there could be a significant disruption in commercial supply. An alternative vendor would need to be qualified through an NDA amendment or supplement which could result in further delay. The FDA or other regulatory agencies outside of the United States may also require additional studies if a new supplier is relied upon for commercial production. Switching vendors may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

If we are unable to obtain the supplies we need at a reasonable price or on a timely basis, it could have a material adverse effect on our ability to complete the development of LYR-210 or LYR-220 or, if we obtain regulatory approval for LYR-210 or LYR-220, to commercialize them.

We may enter into collaborations, in-licensing arrangements, joint ventures, strategic alliances or partnerships with third-parties that may not result in the development of commercially viable products or the generation of significant future revenues.

In the ordinary course of our business, we may enter into collaborations, in-licensing arrangements, joint ventures, strategic alliances, partnerships or other arrangements to develop new products and to pursue new markets. Proposing, negotiating and implementing collaborations, in-licensing arrangements, joint ventures, strategic alliances or partnerships may be a lengthy and complex process. Other companies, including those with substantially greater financial, marketing, sales, technology or other business resources, may compete with us for these opportunities or arrangements. We may not identify, secure, or complete any such transactions or arrangements in a timely manner, on a cost-effective basis, on acceptable terms or at all. We have limited institutional knowledge and experience with respect to these business development activities, and we may also not realize the anticipated benefits of any such transaction or arrangement. In particular, these collaborations may not result in the development of products that achieve commercial success or result in significant revenues and could be terminated prior to developing any products.

Additionally, we may not be in a position to exercise sole decision making authority regarding the transaction or arrangement, which could create the potential risk of creating impasses on decisions, and our future collaborators may have economic or business interests or goals that are, or that may become, inconsistent with our business interests or goals. It is possible that conflicts may arise with our collaborators, such as conflicts concerning the achievement of performance milestones, or the interpretation of significant terms under any agreement, such as those related to financial obligations or the ownership or control of intellectual property developed during the collaboration. If any conflicts arise with any current or future collaborators, they may act in their self-interest, which may be adverse to our best interest, and they may breach their obligations to us. In addition, we may have limited control over the amount and timing of resources that any current or future collaborators devote to our or their future products. Disputes between us and our collaborators may result in litigation or arbitration which would increase our expenses and divert the attention of our management. Further, these transactions and arrangements will be contractual in nature and will generally be terminable under the terms of the applicable agreements and, in such event, we may not continue to have rights to the products relating to such transaction or arrangement or may need to purchase such rights at a premium.

If we enter into in-bound intellectual property license agreements, we may not be able to fully protect the licensed intellectual property rights or maintain those licenses. Future licensors could retain the right to prosecute and defend the intellectual property rights licensed to us, in which case we would depend on the ability of our licensors to obtain, maintain and enforce such licensed intellectual property. These licensors may determine not to pursue litigation against other companies or may pursue such litigation less aggressively than we would. If our licensors do not adequately protect such licensed intellectual property, competitors may be able to use such intellectual property and erode or negate any competitive advantage we may have, which could materially harm our business, negatively affect our position in the marketplace, limit our ability to commercialize our products and product candidates and delay or render impossible our achievement of profitability. Further, entering into such license agreements could impose various diligence, commercialization, royalty or other obligations on us. Future licensors may allege that we have breached our license agreement with them, and accordingly seek to terminate our license, which could adversely affect our competitive business position and harm our business prospects.

Risks Related to Our Intellectual Property

If we are unable to obtain, maintain or adequately protect our intellectual property rights, we may not be able to compete effectively in our markets.

We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect our intellectual property and prevent others from duplicating LYR-210, LYR-220 and any future product candidates.

The strength of patents in the biotechnology and pharmaceutical field involves complex legal, factual and scientific questions and can be uncertain. It is possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. The patent applications that we own may fail to result in issued patents with claims that cover our product candidates in the United States or in other foreign countries. There is no assurance that all of the potentially relevant prior art relating to our patents and patent applications has been found, which can invalidate a patent or prevent a patent from issuing from a pending patent application. Even if patents do successfully issue and even if such patents cover our product candidates, third parties may challenge the inventorship, ownership, validity, enforceability or scope of such patents, which may result in such patents being narrowed or invalidated, or being held unenforceable. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property, provide exclusivity for our product candidates or prevent others from designing around our claims. In addition, no assurances can be given that third parties will not create new products or methods that achieve similar results without infringing upon our patents. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

If the patent applications we hold with respect to our programs or product candidates fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for our product candidates, it could dissuade companies from collaborating with us to develop product candidates, and threaten our ability to commercialize future products. Several patent applications covering our product candidates have been filed recently. We cannot offer any assurances about which, if any, patents will issue, the breadth of any such patents or whether any issued patents will be found invalid or unenforceable or will be threatened by third parties. Any successful opposition to these patents or any other patents owned by us could deprive us of rights necessary for the successful commercialization of any product candidates that we may develop.

Further, if we encounter delays in regulatory approvals, the period of time during which we could market a product candidate under patent protection could be reduced. Since patent applications in the United States and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to file any patent application related to a product candidate. Furthermore, if third parties have filed such patent applications before enactment of the Leahy-Smith Act on March 16, 2013, an interference proceeding in the United States can be initiated by a third party to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. In addition, patents have a limited lifespan. In the United States, the expiration of a patent is generally 20 years after it is filed. Various extensions may be available; however, the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired for the patent covering a product, we may be open to competition from generic competing products.

The issuance of a patent is not conclusive as to its inventorship, ownership, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. In addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our product candidate, if approved, or practicing our own patented technology. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain.

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is either not patentable or that we elect not to patent, processes for which patents are difficult to enforce and any other elements of our product candidate discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our employees, consultants, scientific advisors and contractors. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. Once disclosed, we are likely to lose trade secret protection.

Although we require all of our employees and consultants to assign their inventions to us, to the extent that employees or consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Further, although we require that all of our employees, consultants, collaborators, advisors and any third parties who have access to our proprietary know-how, information or technology enter into confidentiality agreements, we cannot provide any assurances that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently discover our trade secrets or develop substantially equivalent information and techniques. Any of these parties may breach these agreements and we may not have adequate remedies for any specific breach. Misappropriation or unauthorized disclosure of our trade secrets or other confidential proprietary information could impair our competitive position and may have a material adverse effect on our business. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. Additionally, if the steps taken to

maintain our trade secrets or other confidential proprietary information are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret or other confidential proprietary information.

If we are unable to prevent material disclosure of the non-patented intellectual property related to our technologies to third parties, and there is no guarantee that we will have any such enforceable trade secret protection, we may not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, results of operations and financial condition.

Third-party claims of intellectual property infringement may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our avoiding infringement, or allegations of infringement, of the patents and other proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, reexamination, and inter partes review proceedings before the United States Patent and Trademark Office, or USPTO, and corresponding foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are pursuing development candidates. Many companies in intellectual property-dependent industries, including the biotechnology and pharmaceutical industries, have employed intellectual property litigation as a means to gain an advantage over their competitors. As the biotechnology and pharmaceutical industries expand and more patents are issued, and as we gain greater visibility and market exposure as a public company, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties. Some claimants may have substantially greater resources than we do and may be able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. In addition, patent holding companies that focus solely on extracting royalties and settlements by enforcing patent rights may target us.

Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to composition of matter, drug delivery, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. We cannot guarantee that our technologies, products, compositions and their uses do not or will not infringe third party patent or other intellectual property rights. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our product candidates or the use of our product candidates. After issuance, the scope of patent claims remains subject to construction as determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our product candidates. If any third-party patents were held by a court of competent jurisdiction to cover the composition of matter of any of our product candidates, the manufacturing process of any of our product candidates, the method of use for any of our product candidates, the holders of any such patents may be able to block our ability to commercialize such product candidate unless we obtained a license under the applicable patents, which may not be available or may not be available on commercially reasonable terms, or until such patents expire.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our product candidates and/or harm our reputation and financial results. Defense of these claims, regardless of their merit, could involve substantial litigation expense and could be a substantial diversion of management and employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages,

including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products, in the case of claims concerning registered trademarks, rename our product candidates, or obtain one or more licenses from third parties, which may require substantial time and monetary expenditure, and which might be impossible or technically infeasible. Furthermore, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us; alternatively or additionally it could include terms that impede or destroy our ability to compete successfully in the commercial marketplace.

We may be involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents, trademarks, copyrights or other intellectual property. It may be difficult to detect infringers who do not advertise the components that are used in their products. Moreover, it may be difficult or impossible to obtain evidence of infringement in a competitor's or potential competitor's product. To counter infringement or unauthorized use, we may be required to file infringement claims on a country-by-country basis, which can be expensive and time-consuming and divert the time and attention of our management and scientific personnel. There can be no assurance that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Any claims we assert against perceived infringers could also provoke these parties to assert counterclaims against us alleging that we infringe their patents, in addition to counterclaims asserting that our patents are invalid or unenforceable, or both.

In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid, is unenforceable and/or is not infringed, or may construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, interpreted narrowly or held unenforceable, could put our patent applications at risk of not issuing, and could limit our ability to assert those patents against those parties or other competitors and curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks, which could materially harm our business and negatively affect our position in the marketplace.

Even if we establish infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock.

Recent patent reform legislation has increased the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, and may diminish the value of patents in general.

As is the case with other biopharmaceutical companies, our commercial success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Recent wide-ranging patent reform legislation in the United States, including the Leahy-Smith America Invents Act, or the Leahy-Smith Act, could increase those uncertainties and costs.

The Leahy-Smith Act includes a number of significant changes to U.S. patent law, including provisions that affect the way patent applications are prosecuted and may also affect patent litigation. Under The Leahy-Smith Act, the United States transitioned from a "first-to-invent" to a "first-to-file" system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. This will require us to be cognizant going forward of the time from invention to filing of a patent application and be diligent in filing patent applications, but circumstances could prevent us from promptly filing patent applications on our inventions. The Leahy-Smith Act also enlarged the scope of disclosures that qualify as prior art, and it expanded the scope of procedures that a third party may use to challenge a U.S. patent, including post grant review and inter partes review procedures. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

In addition, recent court rulings in cases such as *Association for Molecular Pathology v. Myriad Genetics, Inc., BRCA1- & BRCA2-Based Hereditary Cancer Test Patent Litigation*, and *Promega Corp. v. Life Technologies Corp.* have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents once obtained. Depending on future actions by the U.S. 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 weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

We may employ individuals who were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any of our employee's former employers or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, or our ability to hire personnel, which, in any case of the foregoing, could adversely impact our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO, European and other patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We have systems in place to remind us to pay these fees, and we employ an outside firm and rely on our outside counsel to pay these fees due to non-U.S.

patent agencies. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market, which could have a material adverse effect on our business.

Issued patents covering our product candidates could be found invalid or unenforceable if challenged in court.

If we initiated legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that the patent covering our product candidate is invalid and/or unenforceable. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation.

Such mechanisms include re-examination, post grant review, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover our product candidates.

The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one or more of our product candidates. Such a loss of patent protection could have a material adverse impact on our business. A defendant could also challenge our ownership of patents assigned to us. We cannot be certain that a third party would not challenge our rights to these patents and patent applications. Any legal proceeding or enforcement action can also be expensive and time-consuming.

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

The term of any individual patent depends on applicable law in the country where the patent is granted. In the United States, provided all maintenance fees are timely paid, a patent generally has a term of 20 years from its application filing date or earliest claimed non-provisional filing date. Extensions may be available under certain circumstances, but the life of a patent and, correspondingly, 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. For patents that are eligible for extension of patent term, we expect to seek extensions of patent terms in the United States and, if available, in other countries. In the United States, the Drug Price Competition and Patent Term Restoration Act of 1984 permits a patent term extension of up to five years beyond the normal expiration of the patent, which is limited to the approved indication (or any additional indications approved during the period of extension). We might not be granted an extension because of, for example, failure to apply within applicable periods, failure to apply prior to the expiration of relevant patents or otherwise failure to satisfy any of the numerous applicable requirements. Moreover, the applicable authorities, including the FDA and the USPTO in the United States, and any equivalent regulatory authority 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 may grant more limited extensions than we request. If this occurs, our competitors may be able to obtain approval of competing products following our patent expiration by referencing our clinical and pre-clinical data and launch their product

earlier than might otherwise be the case. If this were to occur, it could have a material adverse effect on our ability to generate revenue.

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

Filing, prosecuting and defending our intellectual property in all countries throughout the world could be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. Therefore, we may choose not to pursue or maintain protection for certain intellectual property in certain jurisdictions. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent such competitors from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuit that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. In addition, many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties (for example, the patent owner has failed to “work” the invention in that country, or the third party has patented improvements) or limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of the patent.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our trademarks of interest and our business may be adversely affected.

While we seek to protect the trademarks we use in the United States and in other countries, we may be unsuccessful in obtaining registrations and/or otherwise protecting these trademarks. If that were to happen, we may be prevented from using our names, brands and trademarks unless we enter into appropriate royalty, license or coexistence agreements, which may not be available or may not be available on commercially reasonable terms. Over the long term, if we are unable to establish name recognition based on our trademarks, trade names, service marks and domain names, then we may not be able to compete effectively, resulting in a material adverse effect on our business. Our registered or unregistered trademarks or trade names may be challenged, infringed, diluted or declared generic, or determined to be infringing on other marks. We rely on both registration and common law protection for our trademarks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors may adopt trademarks and trade names similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks. Over

the long term, if we are unable to establish name recognition based on our trademarks, then we may not be able to compete effectively and our business may be adversely affected. During trademark registration proceedings, we may receive rejections. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. Effective trademark protection may not be available or may not be sought in every country in which our products are made available. Any name we propose to use for our products in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of our proposed product names, we may be required to expend significant additional resources in an effort to identify a usable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected.

Our proprietary rights may not adequately protect our technologies and product candidates, and do not necessarily address all potential threats to our competitive advantage.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, or permit us to maintain our competitive advantage. The following examples are illustrative:

- others may be able to make products that are the same as or similar to our product candidates but that are not covered by the claims of the patents that we own;
- others, including inventors or developers of our patented technologies who may become involved with competitors, may independently develop similar technologies that function as alternatives or replacements for any of our technologies without infringing our intellectual property rights;
- we might not have been the first to conceive and reduce to practice the inventions covered by our patents or patent applications;
- we might not have been the first to file patent applications covering certain of our patents or patent applications;
- it is possible that our pending patent applications will not result in issued patents;
- it is possible that there are prior public disclosures that could invalidate our patents;
- our issued patents may not provide us with any commercially viable products or competitive advantage, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- the Supreme Court of the United States, other U.S. federal courts, Congress, the USPTO or similar foreign authorities may change the standards of patentability and any such changes could narrow or invalidate, or change the scope of, our or our collaboration partners' patents;
- patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time;
- our competitors might conduct research and development activities in countries where we do not have patent rights, or in countries where research and development safe harbor laws exist, and then

use the information learned from such activities to develop competitive products for sale in our major commercial markets;

- ownership, validity or enforceability of our patents or patent applications may be challenged by third parties; and
- the patents of third parties or pending or future applications of third parties, if issued, may have an adverse effect on our business.

Risks Related to Employee Matters and Managing Growth

We will need to expand our organization, and we may experience difficulties in managing this growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of product candidate development, regulatory affairs and sales, marketing and distribution. As of March 31, 2020, we had 34 full-time employees. To manage our growth activities, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. As we expand our organization, we may have difficulty identifying, hiring and integrating new personnel. Future growth would impose significant additional responsibilities on our management, including the need to identify, recruit, maintain, motivate and integrate additional employees, consultants and contractors. Also, our management may need to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of product candidates. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate and/or grow revenues could be reduced, and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize our product candidates and compete effectively will depend, in part, on our ability to effectively manage any future growth.

Many of the biotechnology and pharmaceutical companies that we compete against for qualified personnel and consultants have greater financial and other resources, different risk profiles and a longer history in the industry than we do. If we are unable to continue to attract and retain high-quality personnel and consultants, the rate and success at which we can discover and develop product candidates and operate our business will be limited.

If we lose key management or scientific personnel, cannot recruit qualified employees, directors, officers or other significant personnel or experience increases in our compensation costs, our business may materially suffer.

We are highly dependent on our management and directors, including our chief executive officer, Maria Palasis, Ph.D., among others. Due to the specialized knowledge each of our officers and key employees possesses with respect to our product candidates and our operations, the loss of service of any of our officers or directors could delay or prevent the successful enrollment and completion of our clinical trials. We do not carry key person life insurance on our officers or directors. Although we have formal employment agreements with our executive officers, these agreements do not prevent them from terminating their employment with us at any time.

In addition, our future success and growth will depend in part on the continued service of our directors, employees and management personnel and our ability to identify, hire, and retain additional personnel. If we lose one or more of our executive officers or key employees, our ability to implement our business strategy successfully could be seriously harmed. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, gain regulatory approval of and commercialize product candidates successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these additional key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be engaged by entities other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to develop and commercialize product candidates will be limited.

Many of our employees have become or will soon become vested in a substantial amount of our common stock or a number of common stock options. Our employees may be more likely to leave us if the shares they own have significantly appreciated in value relative to the original purchase prices of the shares, or if the exercise prices of the options that they hold are significantly below the market price of our common stock, particularly after the expiration of the lock-up agreements described herein. Our future success also depends on our ability to continue to attract and retain additional executive officers and other key employees.

We may engage in acquisitions or strategic partnerships that could disrupt our business, cause dilution to our stockholders, reduce our financial resources, cause or to incur debt or assume contingent liabilities, and subject us to other risks.

In the future, we may enter into transactions to acquire other businesses, products or technologies or enter into strategic partnerships, including licensing. If we do identify suitable acquisition or partnership candidates, we may not be able to make such acquisitions or partnerships on favorable terms, or at all. Any acquisitions or partnerships we make may not strengthen our competitive position, and these transactions may be viewed negatively by customers or investors. We may decide to incur debt in connection with an acquisition or issue our common stock or other equity securities to the stockholders of the acquired company, which would reduce the percentage ownership of our existing stockholders. We could incur losses resulting from undiscovered liabilities of the acquired business or partnership that are not covered by the indemnification we may obtain from the seller or our partner. In addition, we may not be able to successfully integrate any acquired personnel, technologies and operations into our existing business in an effective, timely and non-disruptive manner. Acquisitions or partnerships may also divert management attention from day-to-day responsibilities, lead to a loss of key personnel, increase our expenses and reduce our cash available for operations and other uses. We cannot predict the number, timing or size of future acquisitions or partnerships or the effect that any such transactions might have on our operating results.

We or the third parties upon whom we depend may be adversely affected by natural disasters and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Natural disasters could severely disrupt our operations and have a material adverse effect on our business, results of operations, financial condition and prospects. If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as the manufacturing facilities on which we rely, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our

disaster recovery and business continuity plans, which could have a material adverse effect on our business. For example, following Hurricane Maria, shortages in production and delays in a number of medical supplies produced in Puerto Rico resulted, and any similar interruption due to a natural disaster affecting us or any of our third-party manufacturers could materially delay our operations.

The global pandemic caused by COVID-19 could adversely impact our business and operations, including our clinical trials.

In December 2019, a disease caused by a novel strain of the coronavirus, COVID-19, was identified in Wuhan, China. This virus continues to spread globally and, as of April 2020, has spread to a number of countries, including the United States, Australia, Austria, Czech Republic, New Zealand and Poland where we have planned or ongoing clinical trials and activities. On March 11, 2020, the World Health Organization declared the outbreak of COVID-19 as a global pandemic. The global pandemic and government measures taken in response have also had a significant impact, both direct and indirect, on businesses and commerce, as worker shortages have occurred; supply chains have been disrupted; facilities and production have been suspended; and demand for certain goods and services, such as medical services and supplies, has spiked, while demand for other goods and services, such as travel, has fallen. On March 23, 2020, the governor of Massachusetts ordered the closure of all non-essential businesses effective March 24, 2020, through April 7, 2020, which was subsequently extended through May 4, 2020. In light of recent developments relating to the COVID-19 global pandemic, the focus of healthcare providers and hospitals on fighting the virus, and consistent with the FDA's updated industry guidance for conducting clinical trials issued on March 18, 2020, we discontinued enrollment at 67 patients in our ongoing Phase 2 LANTERN clinical trial and we currently do not plan to open any sites in the United States. We are leveraging remote electronic data collection to enable us to complete the clinical assessments and generate sufficient information to design our Phase 3 clinical trial. Furthermore, in response to the spread of COVID-19, we have closed our executive offices with our administrative employees continuing their work outside of our offices.

As a result of the COVID-19 pandemic, we may experience further disruptions that could severely impact our business and clinical trials, including:

- delays or difficulties in enrolling patients in our planned clinical trials;
- delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- interruption of key clinical trial activities, such as clinical trial site data monitoring, due to limitations on travel imposed or recommended by foreign, federal or state governments, employers and others or interruption of clinical trial subject visits and study procedures, which may impact the integrity of subject data and clinical study endpoints;
- interruption or delays in the operations of the FDA or other regulatory authorities, which may impact review and approval timelines;
- interruption of, or delays in receiving, supplies of our product candidates from our contract manufacturing organizations due to staffing shortages, production slowdowns or stoppages and disruptions in delivery systems;
- interruptions in planned pre-clinical studies due to restricted or limited operations at our laboratory facility;

- limitations on employee resources that would otherwise be focused on the conduct of our pre-clinical studies and clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people;
- risk that participants enrolled in our clinical trials will acquire COVID-19 while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events;
- refusal of the FDA to accept data from clinical trials in these affected geographies; and
- interruption or delays to our sourced discovery and clinical activities.

Additionally, certain third parties, including manufacturers, medical institutions, clinical investigators, CROs and consultants with whom we conduct business are similarly adjusting their operations and assessing their capacity in light of the COVID-19 global pandemic. If these third parties continue to experience shutdowns or business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively impacted. For example, as a result of the COVID-19 global pandemic, there could be delays in the manufacturing supply chain for mometasone furoate, which could delay or otherwise impact the manufacturing of LYR-210. It is also likely that the disproportionate impact of COVID-19 on hospitals and clinical sites will have an impact on recruitment and retention for our planned clinical trials.

The COVID-19 global pandemic continues to rapidly evolve. The extent to which the outbreak impacts our business and clinical trials will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of COVID-19, the duration of the pandemic, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions and the effectiveness of actions taken in the United States and other countries to contain and treat COVID-19. The COVID-19 global pandemic has resulted in a widespread health crisis that has adversely affected the economies and financial markets worldwide, resulting in an economic downturn that could continue to significantly impact our business, financial condition and results of operations. To the extent the COVID-19 pandemic adversely affects our business, financial condition and results of operations, it may also have the effect of heightening many of the other risks described in this “Risk Factors” section.

Litigation against us could be costly and time-consuming to defend and could result in additional liabilities.

We may from time to time be subject to legal proceedings and claims that arise in the ordinary course of business or otherwise, such as claims brought by our customers in connection with commercial disputes and employment claims made by our current or former employees. Claims may also be asserted by or on behalf of a variety of other parties, including government agencies, patients or vendors of our customers, or stockholders.

Any litigation involving us may result in substantial costs, operationally restrict our business, and may divert management’s attention and resources, which may seriously harm our business, overall financial condition, and results of operations. Insurance may not cover existing or future claims, be sufficient to fully compensate us for one or more of such claims, or continue to be available on terms acceptable to us. A claim brought against us that is uninsured or underinsured could result in unanticipated costs, thereby adversely impacting our results of operations and resulting in a reduction in the trading price of our stock.

Risks Related to Our Common Stock and this Offering

An active trading market for our common stock may not develop.

Prior to this offering, there has been no public market for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters. Although we have applied to have our common stock listed on The Nasdaq Global Market, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop, it may be difficult for you to sell shares you purchase in this offering without depressing the market price for the shares, or at all.

The market price of our common stock may be volatile and fluctuate substantially, which could result in substantial losses for purchasers of our common stock in this offering.

Our stock price is likely to be volatile. The stock market in general and the market for smaller biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including:

- the success of competitive products or technologies;
- actual or expected changes in our growth rate relative to our competitors;
- results of clinical trials of our product candidates or those of our competitors;
- developments related to our existing or any future collaborations;
- regulatory actions with respect to our product candidates or our competitors' products and product candidates;
- regulatory or legal developments in the United States and other countries;
- development of new product candidates that may address our markets and make our product candidates less attractive;
- changes in physician, hospital or healthcare provider practices that may make our product candidates less useful;
- announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- failure to meet or exceed financial estimates and projections of the investment community or that we provide to the public;
- the results of our efforts to discover, develop, acquire or in-license additional product candidates or products;
- actual or expected changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;

- general economic, industry and market conditions; and
- the other factors described in this "Risk Factors" section and elsewhere in this prospectus.

In addition, the trading prices for common stock of other biopharmaceutical companies have been highly volatile as a result of the COVID-19 global pandemic. The COVID-19 outbreak continues to rapidly evolve. The extent to which the outbreak may impact our business, pre-clinical studies and clinical trials will depend on future developments, which are highly uncertain and cannot be predicted with confidence.

After this offering, our current executive officers, directors and principal stockholders, if they choose to act together, will continue to have the ability to control or significantly influence all matters submitted to stockholders for approval.

Upon the closing of this offering, based on the number of shares of common stock outstanding as of March 31, 2020, our current executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering and their respective affiliates will, in the aggregate, hold shares representing approximately 70.4% of our outstanding voting stock. As a result, if these stockholders choose to act together, they would be able to control or significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would control or significantly influence the election of directors, the composition of our management and approval of any merger, consolidation or sale of all or substantially all of our assets.

If you purchase shares of common stock in this offering, you will suffer immediate dilution of your investment.

The initial public offering price of our common stock will be substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. To the extent shares subsequently are issued under outstanding options or warrants, you will incur further dilution. Based on an assumed initial public offering price of $15.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), you will experience immediate dilution of $8.55 per share as of December 31, 2019, representing the difference between our pro forma as adjusted net tangible book value per share, after giving effect to this offering, and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately 24.4% of the aggregate price paid by all purchasers of our stock and will own approximately 28.3% of our common stock outstanding after this offering.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. We expect that we will use the net proceeds of this offering, together with our existing cash and cash equivalents, to fund the clinical development of LYR-210 and LYR-220, for future product candidate and platform development and the remainder, if any, for working capital and other general corporate purposes as set forth under "Use of Proceeds." However, our use of these proceeds may differ substantially from our current plans. 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, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

Participation in this offering by our existing stockholders and/or their affiliated entities may reduce the public float for our common stock.

To the extent certain of our existing stockholders and their affiliated entities participate in this offering, such purchases would reduce the non-affiliate public float of our shares, meaning the number of shares of our

common stock that are not held by officers, directors and principal stockholders. A reduction in the public float could reduce the number of shares that are available to be traded at any given time, thereby adversely impacting the liquidity of our common stock and depressing the price at which you may be able to sell shares of common stock purchased in this offering.

A significant portion of our total outstanding shares are eligible to be sold into the market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding 12,376,378 shares of common stock based on the number of shares outstanding as of March 31, 2020. This includes the shares that we are selling in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates or existing stockholders. The remaining shares are currently restricted as a result of securities laws or lock-up agreements (which may be waived, with or without notice, by BofA Securities, Inc. and Jefferies LLC) but will become eligible to be sold at various times beginning 180 days after this offering, unless held by one of our affiliates, in which case the resale of those securities will be subject to volume limitations under Rule 144 of the Securities Act of 1933, as amended, or Rule 144. Moreover, after this offering, holders of an aggregate of 8,741,991 shares of our common stock will have rights, subject to specified conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders, until such shares can otherwise be sold without restriction under Rule 144 or until the rights terminate pursuant to the terms of the stockholders' agreement between us and such holders. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the "Underwriting" section of this prospectus.

We are an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and may remain an emerging growth company until the last day of the fiscal year following the fifth anniversary of the closing of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- being permitted to provide 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 in this prospectus;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; 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 have taken advantage of reduced reporting burdens in this prospectus. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of the executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if 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 reduced or more volatile. In addition, the JOBS Act provides that an emerging growth company 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 these accounting standards until they would otherwise apply to private companies.

We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives and corporate governance practices.

As a public company, and particularly after we are no longer an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of The Nasdaq Global Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified members of our board of directors.

We are evaluating these rules and regulations, and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we will be required to furnish a report by our management on our internal control over financial reporting. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants, adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing whether such controls are functioning as documented, and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. We may discover significant deficiencies or material weaknesses, which we may not successfully remediate on a timely basis or at all. Any failure to remediate any significant deficiencies or material weaknesses identified by us or to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet our reporting obligations or result in material misstatements in our financial statements. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

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

The trading market for our common stock will 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 securities or industry analysts commence coverage of us, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our target pre-clinical studies or clinical trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We are a "smaller reporting company" and the reduced disclosure requirements applicable to smaller reporting companies may make our common stock less attractive to investors.

We are considered a "smaller reporting company." We are therefore entitled to rely on certain reduced disclosure requirements, such as an exemption from providing selected financial data and executive compensation information. We are also exempt from the requirement to obtain an external audit on the effectiveness of internal control over financial reporting provided in Section 404(b) of the Sarbanes-Oxley Act. These exemptions and reduced disclosures in our SEC filings due to our status as a smaller reporting company mean our auditors do not review our internal control over financial reporting and may make it harder for investors to analyze our results of operations and financial prospects. We cannot predict if investors will find our common stock less attractive because we may 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 prices may be more volatile.

Provisions in our restated certificate of incorporation and restated bylaws and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our restated certificate of incorporation and our restated bylaws, which will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions include those establishing:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from filling vacancies on our board of directors;

- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;

- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;

- the required approval of the holders of at least two-thirds of the shares entitled to vote at an election of directors to adopt, amend or repeal our bylaws or repeal the provisions of our restated certificate of incorporation regarding the election and removal of directors;

- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;

- the requirement that a special meeting of stockholders may be called only by the chairman of the board of directors, the chief executive officer, the president or the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and

- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Our restated certificate of incorporation will designate specific courts as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Our restated certificate of incorporation, which will become effective upon the closing of this offering, specifies that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for most legal actions involving claims brought against us by stockholders; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Securities Act, the Exchange Act, the rules and regulations thereunder or any other claim for which the federal courts have exclusive jurisdiction; and provided further that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state or federal court sitting in the State of Delaware. Our restated certificate of incorporation further provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our restated certificate of incorporation described above.

We believe these provisions benefit us by providing increased consistency in the application of Delaware law by chancellors particularly experienced in resolving corporate disputes and in the application of the Securities Act by federal judges, as applicable, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. However, the provision may

have the effect of discouraging lawsuits against our directors, officers, employees and agents as it may limit any stockholder's ability to bring a claim in a judicial forum that such stockholder finds favorable for disputes with us or our directors, officers, employees or agents. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provisions contained in our restated certificate of incorporation to be inapplicable or unenforceable in such action. If a court were to find the choice of forum provision contained in our restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business, financial condition or results of operations.

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

We have never declared or paid any cash dividends on our common shares. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. As a result, capital appreciation, if any, of our common shares would be your sole source of gain on an investment in our common shares for the foreseeable future. See the "Dividend Policy" section of this prospectus for additional information.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Our ability to use our net operating losses and research and development credits to offset future taxable income may be subject to certain limitations.

As of December 31, 2019, we had net operating loss carryforwards, or NOLs, of $114.3 million for federal income tax purposes and $95.6 million for state income tax purposes, which may be available to offset our future taxable income, if any, and begin to expire at various dates through 2037. As of December 31, 2019, we also had federal and state research and development credit carryforwards of $5.0 million, which begin to expire at various dates through 2034. In general, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an "ownership change," generally defined as a greater than 50% change by value in its equity ownership over a three-year period, is subject to limitations on its ability to utilize its pre-change NOLs and its research and development credit carryforwards to offset future taxable income. Our existing NOLs and research and development credit carryforwards may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this offering, our ability to utilize NOLs and research and development credit carryforwards could be further limited by Sections 382 and 383 of the Code. Future changes in our stock ownership, some of which might be beyond our control, could result in an ownership change under Section 382 of the Code. For these reasons, in the event we experience a change of control, we may not be able to utilize a material portion of the NOLs or research and development credit carryforwards even if we attain profitability.

The impact of the Tax Cuts and Jobs Act on our financial results is not entirely clear and could differ materially from the financial statements provided herein.

On December 22, 2017, the United States enacted the Tax Cuts and Jobs Act, or TCJA, that significantly reformed the Code. The TCJA, among other things, contained 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; limitation of the deduction for NOLs and elimination of NOL carrybacks, in each case, for losses arising in taxable years beginning after December 31, 2017 (though any such tax losses may be carried forward indefinitely); and modifying or repealing many business deductions and credits. The financial statements contained herein reflect the effects of the TCJA based on current guidance. However, there remain uncertainties and ambiguities in the application of certain provisions of the TCJA, and, as a result, we made certain judgments and assumptions in the interpretation thereof. The U.S. Treasury Department and the Internal Revenue Service may issue further guidance on how the provisions of the TCJA will be applied or otherwise administered that differs from our current interpretation. In addition, the TCJA could be subject to potential amendments and technical corrections, any of which could materially lessen or increase certain adverse impacts of the legislation on us.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus are forward-looking statements, including but not limited to statements regarding:

- our plans to develop and commercialize our product candidates;
- the timing of our ongoing or planned clinical trials for LYR-210, LYR-220 and any future product candidates;
- the timing of and our ability to obtain and maintain regulatory approvals for LYR-210, LYR-220 and any future product candidates;
- the clinical utility of our product candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our expectations about the willingness of healthcare professionals to use LYR-210, LYR-220 and any future product candidates;
- our intellectual property position;
- our expected use of proceeds from this offering;
- our competitive position and developments and projections relating to our competitors or our industry;
- our ability to identify, recruit and retain key personnel;
- the impact of laws and regulations;
- risks associated with the COVID-19 global pandemic, which may adversely impact our business and clinical trials;
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act;
- our plans to identify additional product candidates with significant commercial potential that are consistent with our commercial objectives;
- research and development cost;
- our estimates and statements regarding our future revenue, future results of operations and financial position;
- our business strategy;
- our research and development costs;
- our plans and objectives of management for future operations; and
- the plans and objectives of management.

These 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.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential,” “would” or “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words. The forward-looking statements in this prospectus are only predictions and are based 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. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of known and unknown risks, uncertainties and assumptions, including those described under the sections in this prospectus entitled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this prospectus. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, 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. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. The forward-looking statements contained in this prospectus are excluded from the safe harbor protection provided by the Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act of 1933, as amended.

MARKET AND INDUSTRY DATA

We obtained the industry, market and competitive position data in this prospectus from our own internal estimates and research as well as from industry and general publications and research, surveys and studies conducted by third parties. Industry publications, studies and surveys generally state that they have been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that each of these studies and publications is reliable, we have not independently verified market and industry data from third-party sources. Management's estimates are derived from publicly available information, their knowledge of our industry and their assumptions based on such information and knowledge, which we believe to be reasonable. While we believe our internal company research as to such matters is reliable and the market definitions are appropriate, neither such research nor these definitions have been verified by any independent source. This data involves a number of assumptions and limitations which are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause our future performance to differ materially from our assumptions and estimates.

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 approximately $46.2 million, assuming an initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters' option to purchase additional shares from us is exercised in full, we estimate that our net proceeds will be approximately $53.6 million.

Each $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share would increase (decrease) the net proceeds to us from this offering by approximately $3.3 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 the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase (decrease) of 1.0 million in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by $13.9 million, assuming the assumed initial public offering price stays the same.

We anticipate that we will use the net proceeds of this offering, together with our existing cash and cash equivalents, for the following purposes:

- approximately $47.0 million to $50.0 million to fund the clinical development and manufacturing and other pre-commercialization expenses for LYR-210 through completion of our Phase 3 clinical trial;
- approximately $4.0 million to $6.0 million to fund the development of LYR-220 through completion of our Phase 2 clinical trial; and
- the remainder, if any, to complete the transfer of our manufacturing process to a contract manufacturer, for platform development and other research and development expenses for our pipeline, and for working capital and other general corporate purposes.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. We may also use a portion of the net proceeds to in-license, acquire, or invest in additional businesses, technologies, products or assets, although currently we have no specific agreements, commitments or understandings in this regard. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the closing of this offering or the amounts that we will actually spend on the uses set forth above. Predicting the cost necessary to develop product candidates can be difficult and we anticipate that we will need additional funds to complete the development of any product candidates we identify. The amounts and timing of our actual expenditures and the extent of clinical development may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from pre-clinical studies and any ongoing clinical trials or clinical trials we may commence in the future, as well as any collaborations that we may enter into with third parties for our product candidates and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

As of March 31, 2020, we had $35.3 million of cash and cash equivalents on hand. Based on our planned use of the net proceeds of this offering and our current cash and cash equivalents, we estimate that such funds will be sufficient to enable us to fund our operating expenses and capital expenditure requirements into the fourth quarter of 2023. With our existing cash and cash equivalents and the net proceeds of this offering, we expect to be able to complete our Phase 3 clinical trial of LYR-210; complete our Phase 2 clinical trial for LYR-220; and complete the transfer of our manufacturing process to a contract manufacturer. We have based these estimates on assumptions that may prove to be incorrect, and we could use our available capital resources sooner

than we currently expect. In any event, we will require additional funding to be able to commercialize LYR-210 and LYR-220, and we do not yet have any committed source of funding for the commercialization of LYR-210 or the additional clinical development and commercialization of LYR-220. We may satisfy our future cash needs through the sale of equity securities, debt financings, working capital lines of credit, corporate collaborations or license agreements, grant funding, interest income earned on invested cash balances or a combination of one or more of these sources.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term and intermediate-term, investment-grade, interest-bearing instruments and U.S. government securities.

DIVIDEND POLICY

We currently intend to retain all available funds and future earnings, if any, for the operation and expansion of our business and do not anticipate declaring or paying any dividends in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors after considering our financial condition, results of operations, capital requirements, contractual requirements, business prospects and other factors the board of directors deems relevant, and subject to the restrictions contained in any future financing instruments.

On March 20, 2012, we declared and paid a special cash dividend of $0.2630467 per share of our common stock, which we refer to as the Special Dividend, which totaled approximately $42,115 in the aggregate. Other than the Special Dividend, we have not declared or paid any cash dividends on our capital stock.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2019, as follows:

- on an actual basis;
- on a pro forma basis to reflect (1) the issuance and sale of 78,306,611 shares of our Series C preferred stock, at a price of $0.38811 per share, and warrants to purchase 681,256 shares of our common stock, in each case, in January 2020, (2) the automatic conversion of all outstanding shares of our preferred stock into 8,335,248 shares of common stock upon the closing of this offering, (3) the issuance to George Whitesides, Ph.D., one of our directors, in lieu of compensation payable by us under a consulting agreement, of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering (a $1.00 increase in the assumed initial public offering price of $15.00 per share would decrease the number of shares of our common stock issued by 1,311 shares; a $1.00 decrease in the assumed initial public offering price of $15.00 per share would increase the number of shares of our common stock issued by 1,498 shares), (4) the automatic cashless exercise of outstanding warrants to purchase shares of common stock, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 289,298 shares of our common stock upon the closing of this offering (a $1.00 increase in the assumed initial public offering price of $15.00 per share would increase the number of additional shares of our common stock issuable in connection with such automatic exercise by an aggregate of 24,496 shares; a $1.00 decrease in the assumed initial public offering price of $15.00 per share would decrease the number of additional shares of our common stock issuable in connection with such exercise by an aggregate of 27,992 shares) and (5) the filing and effectiveness of our restated certificate of incorporation which will occur upon the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of 3,500,000 shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this information in conjunction with our consolidated financial statements and the related notes appearing at the end of this prospectus and the “Use of Proceeds,” “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections and other financial information contained in this prospectus.

	As of December 31, 2019 (in thousands, except share data)		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
Cash and cash equivalents	$ 9,808	$ 39,994	$ 86,244
Redeemable convertible preferred stock (Series A-1/A, Series A-1/B, Series A-1/C, Series A-2, Series A-3, Series A-4, Series B and Series C), par value $0.001 per share; 210,786,340 shares authorized, 209,119,674 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	$ 130,666	$ —	$ —
Stockholders' (deficit) equity			
Preferred stock, $0.001 par value; no shares authorized, issued or outstanding, actual; no shares authorized and no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	—
Common stock, par value $0.001 per share; 275,000,000 shares authorized, 230,860 shares issued and outstanding, actual; 275,000,000 shares authorized, 8,876,378 shares issued and outstanding, pro forma; 200,000,000 shares authorized, 12,376,378 shares issued and outstanding, pro forma as adjusted	—	8	12
Additional paid-in capital	4,419	165,578	211,804
Accumulated deficit	(127,757)	(127,757)	(127,757)
Total stockholders' (deficit) equity	(123,338)	37,829	84,059
Total capitalization	$ 7,328	$ 37,829	$ 84,059

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid in capital, total stockholders' equity and total capitalization by $3.25 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 and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid in capital, total stockholders' equity and total capitalization by approximately $13.95 million.

The number of shares in the table above does not include:

- 572,979 shares of common stock issuable upon the exercise of stock options outstanding, pursuant to our 2016 Plan, as of December 31, 2019, at a weighted-average exercise price of $2.76 per share;
- 219,460 shares of common stock issuable upon the exercise of stock options outstanding, pursuant to our 2005 Plan, as of December 31, 2019, at a weighted-average exercise price of $16.60 per share;
- 109,239 shares of common stock issuable upon the exercise of stock options granted after December 31, 2019 pursuant to our 2016 Plan;
- 494,716 shares of common stock issuable upon the exercise of stock options to be granted in connection with this offering under our 2020 Plan, which will become effective in connection with

this offering, to certain of our directors, executive officers and employees, at an exercise price per share equal to the initial public offering price in this offering;

- 1,605,284 additional shares of our common stock reserved for future issuance under our 2020 Plan, which will become effective in connection with this offering, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under our 2020 Plan; and

- 150,000 shares of our common stock that will become available for future issuance under our 2020 ESPP, which will become effective in connection with this offering, and shares of our common stock that become available pursuant to provisions in our 2020 ESPP that automatically increase the share reserve under our 2020 ESPP.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted 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 after this offering.

As of December 31, 2019, we had a historical net tangible book value (deficit) of $(127.6) million, or $(552.79) per share of common stock. Our historical net tangible book value (deficit) per share represents total tangible assets less total liabilities and preferred stock, divided by the number of shares of our common stock outstanding as of December 31, 2019.

Our pro forma net tangible book value as of December 31, 2019 was $33.6 million, or $3.78 per share. Pro forma net tangible book value represents the amount of our total tangible assets less total liabilities, after giving effect to (1) the issuance and sale of 78,306,611 shares of our Series C preferred stock, at a price of $0.38811 per share, and warrants to purchase 681,256 shares of our common stock, in each case, in January 2020, (2) the automatic conversion of all shares of our preferred stock into an aggregate of 8,335,248 shares of our common stock in connection with this offering, (3) the issuance to George Whitesides, Ph.D., one of our directors, in lieu of compensation payable by us under a consulting agreement, of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering and (4) the automatic cashless exercise of outstanding warrants to purchase shares of common stock, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 289,298 shares of our common stock upon the closing of this offering. Pro forma net tangible book value per share represents our pro forma net tangible book value divided by the total number of shares outstanding as of December 31, 2019, after giving effect to the pro forma adjustment described above.

After giving further effect to receipt of the net proceeds from our issuance and the sale of 3,500,000 shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2019 would have been approximately $79.8 million, or approximately $6.45 per share. This amount represents an immediate increase in pro forma net tangible book value of $2.67 per share to our existing stockholders and an immediate dilution of approximately $8.55 per share to new investors participating in this offering. We determine dilution by subtracting the pro forma as adjusted net tangible book value per share 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:

Assumed initial public offering price per share		$15.00
Historical net tangible book value (deficit) per share as of December 31, 2019	$(552.79)	
Increase (decrease) per share attributable to the issuance and sale of shares of our Series C preferred stock and warrants to purchase shares of our common stock, in each case, in January 2020, the conversion of our preferred stock, the issuance to one of our directors in lieu of other compensation of shares of our common stock upon the closing of this offering and the automatic cashless exercise of outstanding warrants to purchase shares of our common stock	556.57	
Pro forma net tangible book value per share as of December 31, 2019	3.78	
Increase per share attributable to this offering	2.67	
Pro forma as adjusted net tangible book value per share after this offering		$ 6.45
Dilution per share to new investors in this offering		$ 8.55

Each $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by $0.26, and dilution in pro forma net tangible book value per share to new investors by $0.74, 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 and estimated offering expenses payable by us. Each increase of 1.0 million shares in the number of shares offered by us would increase our pro forma as adjusted net tangible book value per share after this offering by $0.56 per share and decrease the dilution to new investors by $0.56 per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us. Similarly, each decrease of 1.0 million shares in the number of shares offered by us would decrease our pro forma as adjusted net tangible book value per share after this offering by $0.66 per share and increase the dilution to new investors by $0.66 per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares of our common stock in full, the pro forma as adjusted net tangible book value after this offering would be $6.75 per share, the increase in pro forma net tangible book value per share would be $0.30 and the dilution per share to new investors would be $8.25 per share, in each case assuming an initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us.

The following table summarizes on the pro forma as adjusted basis described above, as of December 31, 2019, the differences between the number of shares purchased from us, the total consideration paid to us in cash and the average price per share that existing stockholders and new investors paid. The calculation below is based on an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting the estimated 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	8,876,378	71.7%	$ 162,447	75.6%	$ 18.30
New investors	3,500,000	28.3%	52,500	24.4%	15.00
Total	12,376,378	100.0%	$ 214,947	100.0%	$ 17.37

A $1.00 increase or decrease in the assumed initial public offering price of $15.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the total consideration paid by new investors by $3.5 million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by 1.2 percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by 1.2 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 shares 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 $15.0 million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by 5.0 percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by 5.6 percentage points, assuming no change in the assumed initial public offering price.

The foregoing tables and calculations are based on the number of shares of our common stock outstanding as of December 31, 2019, after giving effect to the automatic conversion of all outstanding shares of our preferred stock into common stock in connection with this offering, and exclude:

- 572,979 shares of common stock issuable upon exercise of stock options outstanding under our 2016 Plan as of December 31, 2019, at a weighted-average exercise price of $2.76 per share;

- 219,460 shares of common stock issuable upon exercise of stock options outstanding under our 2005 Plan as of December 31, 2019, at a weighted-average exercise price of $16.60 per share;

- 109,239 shares of common stock issuable upon the exercise of stock options granted after December 31, 2019 pursuant to our 2016 Plan;

- 494,716 shares of common stock issuable upon the exercise of stock options to be granted in connection with this offering under our 2020 Plan, which will become effective in connection with this offering, to certain of our directors, executive officers and employees, at an exercise price per share equal to the initial public offering price in this offering;

- 1,605,284 additional shares of our common stock reserved for future issuance under our 2020 Plan, which will become effective in connection with this offering, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under our 2020 Plan; and

- 150,000 shares of our common stock that will become available for future issuance under our 2020 ESPP, which will become effective in connection with this offering, and shares of our common stock that become available pursuant to provisions in our 2020 ESPP that automatically increase the share reserve under our 2020 ESPP.

To the extent any of these outstanding options is exercised, there will be further dilution to new investors. If all of such outstanding options had been exercised as of December 31, 2019, the pro forma as adjusted net tangible book value per share after this offering would be $6.78, and total dilution per share to new investors would be $8.22.

If the underwriters exercise their option to purchase additional shares of our common stock in full:

- the percentage of shares of common stock held by existing stockholders will decrease to approximately 72.9% of the total number of shares of our common stock outstanding after this offering; and

- the number of shares held by new investors will increase to 4,025,000, or approximately 27.1% of the total number of shares of our common stock outstanding after this offering.

SELECTED CONSOLIDATED FINANCIAL DATA

You should read the following selected consolidated financial data together with our consolidated 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" section of this prospectus. We have derived the consolidated statement of operations data for the years ended December 31, 2019 and 2018 and the consolidated balance sheet data as of December 31, 2019 and 2018 from our audited consolidated financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of results that may be expected in any future period.

	Years Ended December 31,	
	2019	2018
	(in thousands, except share and per share data)	
Consolidated Statement of Operations Data:		
Grant revenues	$ —	$ 1,244
Operating expenses:		
Research and development	12,032	4,975
General and administrative	4,487	3,528
Total operating expenses	16,519	8,503
Loss from operations	(16,519)	(7,259)
Other income:		
Interest income (expense), net	213	36
Other income, net	—	10
Change in fair value of tranche liability	—	1,184
Total other income, net	213	1,230
Net loss	$ (16,306)	$ (6,029)
Net loss per share attributable to common stockholders—basic and diluted(1)	$ (82.23)	$ (36.79)
Weighted-average common shares outstanding—basic and diluted(1)	202,093	166,084
Pro forma net loss per share attributable to common stockholders—basic and diluted (unaudited)(1)	$ (2.65)	
Pro forma weighted-average common shares outstanding—basic and diluted (unaudited)(1)	6,266,472	

(1) See Note 2 to our consolidated financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma basic and diluted net loss per common share and the weighted average number of shares used in the computation of the per share amounts.

	As of December 31,	
	2019	2018
	(in thousands)	
Consolidated Balance Sheet Data:		
Cash and cash equivalents	$ 9,808	$ 23,888
Working capital(1)	4,911	22,967
Total assets	14,963	25,359
Total redeemable convertible preferred stock	130,666	130,353
Total stockholders' deficit	(123,338)	(107,074)

(1) We define working capital as current assets less current liabilities. See our consolidated financial statements for further details regarding our current assets and current liabilities.

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 the "Selected Consolidated Financial Data" section of this prospectus and our consolidated financial statements and the related notes included elsewhere 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.

Overview

We are a clinical-stage therapeutics company focused on the development and commercialization of novel integrated drug and delivery solutions for the localized treatment of patients with ear, nose and throat diseases. Our proprietary technology platform, XTreo, is designed to precisely and consistently deliver medicines directly to the affected tissue for sustained periods with a single administration. Our initial product candidates, LYR-210 and LYR-220, are bioresorbable polymeric matrices designed to be administered in a brief, non-invasive, in-office procedure and intended to deliver up to six months of continuous drug therapy to the sinonasal passages for the treatment of chronic rhinosinusitis, or CRS. The therapeutic embedded within LYR-210 and LYR-220 is mometasone furoate, which is the active ingredient in various U.S. Food and Drug Administration, or FDA, approved drugs and has a well-established efficacy and safety profile. CRS is an inflammatory disease of the paranasal sinuses which leads to debilitating symptoms and significant morbidities and affects approximately 14 million people in the United States. We are advancing LYR-210 as a potential preferred alternative to surgery in an ongoing Phase 2 LANTERN clinical trial for CRS patients who have failed medical management. In our Phase 1 clinical trial, LYR-210 met its primary safety endpoint, and we observed that patients generally experienced significant and rapid, clinically meaningful and durable improvement in SNOT-22 scores, an established patient symptom severity scale, through week 25, which was the end of the trial. We are also developing LYR-220 for use in CRS patients who have an enlarged nasal cavity due to sinus surgery but continue to require treatment to manage CRS symptoms. Beyond CRS, we believe our XTreo platform has potential applications in other disease areas, which we are actively exploring to further broaden its therapeutic potential.

We were incorporated as a Delaware corporation on November 21, 2005, and our headquarters is located in Watertown, Massachusetts. On July 16, 2018, we formally changed our name to Lyra Therapeutics, Inc. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, developing our technology, building our intellectual property portfolio and conducting research and development activities for our product candidates. We do not have any products approved for sale and have not generated any revenue from product sales. To date, we have funded our operations primarily through private placements of redeemable convertible preferred stock and funding from government contracts. From inception through December 31, 2019, we have raised an aggregate of $148.9 million to fund our operations, of which $131.8 million were gross proceeds from sales of our redeemable convertible preferred stock, $0.3 million were gross proceeds from the issuance of common stock and $16.8 million were gross proceeds from government contracts. In January 2020, we raised $30.4 million of gross proceeds from the sale of our Series C redeemable convertible preferred stock.

We have incurred significant net operating losses in every year since our inception and expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. Our net losses may fluctuate significantly from quarter to quarter and year to year and could be substantial. Our net losses were $16.3 million and $6.0 million for the years ended December 31, 2019 and 2018, respectively. As of

December 31, 2019, we had an accumulated deficit of $127.8 million. We anticipate that our expenses will increase significantly as we:

- conduct additional clinical trials of our most advanced product candidate, LYR-210, including the Phase 2 LANTERN trial which commenced in May 2019 and one or more planned pivotal Phase 3 clinical trials of LYR-210;
- advance the development of LYR-220;
- continue to discover and develop additional product candidates;
- establish manufacturing and supply chain capacity sufficient to provide commercial quantities of any product candidates for which we may obtain marketing approval;
- seek regulatory and marketing approvals for product candidates that successfully complete clinical trials, if any;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain regulatory approval in geographies in which we plan to commercialize our products ourselves;
- maintain, expand and protect our intellectual property portfolio;
- hire additional staff, including clinical, scientific, technical, regulatory, operational, financial commercial and support personnel, to execute our business plan; and
- add clinical, scientific, operational, financial and management information systems and personnel to support our product development and potential future commercialization efforts, and to enable us to operate as a public company.

We do not expect to generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for a product candidate. Additionally, we currently use contract research organizations, or CROs, to carry out our clinical development activities. We do not yet have a sales organization. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Furthermore, commencing upon the closing of this offering, we will incur additional costs associated with operating as a public 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 fund our operations through public or private equity or debt financings or other sources, including strategic collaborations. We may, however, be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements as and when needed would have a negative impact on our financial condition and our ability to develop our current product candidates, or any additional product candidates, if developed.

Because of the numerous risks and uncertainties associated with therapeutics product development, we are unable to accurately predict the timing or amount of increased expenses or when or if we will be able to achieve or maintain profitability. Even if we are able to generate revenue from product sales, we may not become profitable. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations.

As of December 31, 2019, we had cash and cash equivalents totaling $9.8 million. We believe that the net proceeds from this offering, together with our existing cash and cash equivalents and the funds we raised in

January 2020, will enable us to fund our operating expenses and capital expenditure requirements into the fourth quarter of 2023. We have based these estimates on assumptions that may prove to be imprecise or incorrect, and we may use our available capital resources sooner than we currently expect. See "—Liquidity and Capital Resources." Because of the numerous risks and uncertainties associated with the development of our product candidates and any future product candidates, our platform and technology and because the extent to which we may enter into collaborations with third parties for development of any of our product candidates is unknown, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the research and development of our product candidates.

If we raise additional funds through collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce, or terminate our product development programs or any future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Financial Operations Overview

Revenue

To date, we have not generated any revenue from product sales and do not expect to generate any revenue from the sale of products in the foreseeable future. If our development efforts for our product candidates are successful and result in regulatory approval and successful commercialization efforts, we may generate revenue in the future from product sales. We cannot predict if, when, or to what extent we will generate revenue from the commercialization and sale of our product candidates. We may never succeed in obtaining regulatory approval for any of our product candidates.

To date, all of our revenue has been derived from government awards. In July 2016, we were awarded a grant from the National Institutes of Health, or NIH, titled "Novel Bioabsorbable, Flexible Polymeric Stent for Pulmonary Artery Stenosis," which we refer to as PED-PA. The amount awarded of approximately $1.0 million related to the award period of August 2016 through July 2019.

In September 2016, we received a fixed-fee award of approximately $0.4 million from NIH for the development leading to the commercialization of bioresorbable stents, or BRS, for the treatment of coarctation of the aorta in neonates, which we refer to as PED-CA. In November 2017, we were awarded an amendment to this contract which increased the amount by approximately $3.0 million. We recognized revenue under the government awards as we incurred qualifying expenses. During the years ended December 31, 2019 and 2018, we recognized $0 and approximately $1.2 million, respectively, of revenue under the NIH awards. In 2019, we focused our efforts on the development of LYR-210 and our other product development efforts and are no longer conducting research under the NIH awards and as a result do not expect any future revenue from government awards.

Operating Expenses

Our operating expenses since inception have consisted solely of research and development costs and general and administrative costs.

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for our research activities, including the development of and pursuit of regulatory approval of our most advanced product candidate, LYR-210, for the treatment of CRS, which include:

- employee-related expenses, including salaries, benefits and stock-based compensation expense for personnel engaged in research and development functions;
- expenses incurred in connection with the preclinical and clinical development of our product candidates, including under agreements with CROs, investigative sites and consultants;
- costs of manufacturing our product candidates for use in our preclinical studies and clinical trials as well as manufacturers that provide components of our product candidates for use in our preclinical and potential future clinical trials;
- consulting and professional fees related to research and development activities;
- costs related to compliance with clinical regulatory requirements; and
- facility costs and other allocated expenses, which include expenses for rent and maintenance of our facility, utilities, depreciation and other supplies.

We expense research and development costs as incurred. We recognize costs for certain development activities, such as clinical trials, based on an evaluation of the progress to completion of specific tasks using data such as clinical site activations, patient enrollment, or information provided to us by our vendors and our clinical investigative sites. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and may be reflected in our consolidated financial statements as prepaid or accrued research and development expenses.

Our external research and development expenses consist primarily of costs such as fees paid to consultants, contractors and CROs in connection with our preclinical and clinical development activities. We typically use our employee and infrastructure resources across our development programs and we do not allocate personnel costs and other internal costs to specific product candidates or development programs with the exception of the costs to manufacture our product candidates.

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 that our research and development expenses will continue to increase for the foreseeable future as we initiate additional clinical trials, including one or more clinical trials for LYR-210 and LYR-220, scale our manufacturing processes, continue to discover and develop additional product candidates and hire additional clinical and scientific personnel.

The successful development of LYR-210, LYR-220 and other potential future product candidates is highly uncertain. Accordingly, at this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of these product candidates. We are also unable to predict when, if ever, we will generate revenue and material net cash inflows from the commercialization and sale of any of our product candidates for which we may obtain marketing approval. We may never succeed in achieving regulatory approval for any of our product candidates. The duration, costs and timing of preclinical studies, clinical trials and development of our product candidates will depend on a variety of factors, including:

- successful completion of clinical trials with safety, tolerability and efficacy profiles for LYR-210, LYR-220 and any potential future product candidates that are satisfactory to the FDA or any comparable foreign regulatory authority;

- approval of an IND for LYR-220 and any potential future product candidate to commence planned or future clinical trials in the United States or foreign countries;
- significant and changing government regulation and regulatory guidance;
- timing and receipt of marketing approvals from applicable regulatory authorities;
- establishing arrangements with contract manufacturing organizations, or CMOs, for third-party clinical and commercial manufacturing to obtain sufficient supply of our product candidates;
- obtaining and maintaining patent and other intellectual property protection and regulatory exclusivity for our product candidates;
- commercializing the product candidates, if and when approved, whether alone or in collaboration with others;
- acceptance of the product, if and when approved, by patients, the medical community and third-party payors;
- competition with other therapies;
- maintenance of a continued acceptable safety profile of the products following approval; and
- business interruptions resulting from the COVID-19 global pandemic.

A change in the outcome of any of these variables with respect to the development, manufacture or commercialization enabling activities of any of our product candidates would significantly change the costs, timing and viability associated with the development of that product candidate. For example, if the FDA or another regulatory authority were to require us to conduct clinical trials beyond those that we anticipate will be required for the completion of clinical development of a product candidate, or if we experience significant delays in our clinical trials due to patient enrollment or other reasons, we would be required to expend significant additional financial resources and time on the completion of clinical development.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in executive, finance and administrative functions. General and administrative expenses also include direct and allocated facility-related costs as well as professional fees for legal, patent, consulting, investor and public relations, accounting, auditing, tax services and insurance costs.

We expect that our general and administrative expenses will increase in the future to support continued research and development activities and potential commercialization of our product candidates. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, attorneys and accountants, among other expenses. Additionally, we expect to incur increased expenses associated with being a public company, including costs of additional personnel, accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and Securities and Exchange Commission, or SEC, requirements, director and officer insurance costs, and investor and public relations costs.

Interest Income (Expense), Net

Interest income (expense), net, primarily consists of non-cash interest expense incurred on our convertible notes, non-cash accretion of the fair value of the conversion feature related to our convertible notes, and interest income earned on our cash and cash equivalents.

Change in Fair Value of Tranche Liability

Change in fair value of tranche liability consists of non-cash changes in the fair value of the tranche rights associated with our Series B redeemable convertible preferred stock which provided investors with the right to participate in a subsequent offering of Series B redeemable convertible preferred stock in the event specified development milestone was achieved. We classified the tranche rights as a derivative liability on our consolidated balance sheet that was initially recorded at fair value and that we remeasured to fair value at each reporting date, and we recognized changes in the fair value of the derivative associated with the tranche rights as a component of other income in our consolidated statement of operations and comprehensive loss. The tranche liability was valued using the Black-Scholes option pricing model, which considered as inputs (a) the expected stock price volatility of the underlying common stock, (b) the expected term of the tranche right, (c) the risk-free interest rate and (d) expected dividends. The tranche rights were settled in 2018.

Critical Accounting Policies and Use of Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of these 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 consolidated financial statements during the reporting periods. These items are monitored and analyzed by us for changes in facts and circumstances, and material changes in these estimates could occur in the future. We base our estimates on historical experience, known trends and events, and on various other factors that we believe are 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. Changes in estimates are reflected in reported results for the period in which they become known. Actual results may differ materially 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 used in the preparation of our consolidated financial statements require the most significant judgments and estimates.

Accrued Research and Development Expenses

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued research and development expenses. This process involves reviewing purchase orders and open contracts, 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 services when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly in arrears for services performed, on a pre-determined schedule or when contractual milestones are met; however, some require advance payments. We make estimates of our accrued expenses as of each balance sheet date in our consolidated financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include the following costs incurred for services in connection with research and development activities for which we have not yet been invoiced:

- vendors in connection with the preclinical development activities;
- vendors in connection with the testing of preclinical and clinical trial materials;
- CROs in connection with preclinical and clinical studies; and
- investigative sites in connection with clinical trials.

We contract with CROs to conduct clinical and other research and development services on our behalf. We base our expenses related to CROs on our estimates of the services received and efforts expended pursuant to quotes and contracts with them. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our CROs will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or amount of prepaid expense accordingly. Non-refundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in reporting amounts that are too high or too low in any particular period. To date, there have not been any material adjustments to our prior estimates of accrued research and development expenses.

Stock-Based Compensation

We apply the fair value recognition provisions of ASC 718, *Compensation—Stock Compensation*, or ASC 718, for stock-based awards granted to employees and directors for their services on the board of directors. Determining the amount of stock-based compensation to be recorded requires us to develop estimates of the fair value of stock options as of their grant date. We estimate the fair value of each stock option grant using the Black-Scholes option-pricing model. Calculating the fair value of stock-based awards requires that we make subjective assumptions.

Pursuant to ASC 718, we measure stock-based awards granted to employees and members of the board of directors at fair value on the date of grant and recognize the corresponding stock-based compensation expense of those awards on a straight-line basis over the requisite service period, which is generally the vesting period of the respective award. We have historically granted stock options with exercise prices equivalent to the fair value of our common stock as of the date of grant.

We account for stock-based awards to non-employees in accordance with ASU No. 2018-07, *Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*, or ASU No. 2018-07, which permits the valuation of stock-based awards granted to non-employees to be measured at fair value at the grant date rather than on an accelerated attribution basis over the vesting period and recognizes non-employee stock-based compensation expense over the related service period of the non-employee award. Prior to January 1, 2019, we accounted for stock-based payments to non-employees in accordance with ASC 505-50, *Equity-Based Payments to Non-Employees*, or ASC 505-50. Pursuant to ASC 505-50, we measured stock-based awards granted to non-employees at fair value as the awards vest and recognize the resulting value as expense during the period the related services are rendered, which is typically the vesting period. At the end of each financial reporting period prior to completion of the service, we re-measured the unvested portion of these awards using the then-current fair value of our common stock and updated assumption inputs in the Black-Scholes option-pricing model.

The Black-Scholes option-pricing model uses the following inputs: the fair value of our common stock, the expected volatility of our common stock, the expected term of our stock options, the risk-free interest rate for a period that approximates the expected term of our stock options and our expected dividend yield. Due to the lack of a public market for our common stock and a lack of company-specific historical and implied volatility data, we have based our computation of expected volatility on the historical volatility of a representative group of public companies with similar characteristics to us, including stage of product development, life science industry

focus, length of trading history and similar vesting provisions. The historical volatility data is calculated based on a period of time commensurate with the expected term assumption. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available or until circumstances change, such that the identified entities are no longer representative companies. In the latter case, more suitable, similar entities whose share prices are publicly available would be utilized in the calculation. We use the simplified method as prescribed by the SEC Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term for options granted to employees as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. Under this approach, the weighted-average expected option term is presumed to be the average of the contractual term (ten years) and the vesting term (generally four years) of our stock options. We utilize this method due to lack of historical exercise data and the "plain-vanilla" nature of our stock-based awards. The expected term is applied to the stock option grant group as a whole, as we do not expect substantially different exercise or post-vesting termination behavior among our employee population. For options granted to non-employees, we utilize the contractual term of the arrangement as the basis for the expected term assumption. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected term of the stock options. The expected dividend yield is assumed to be zero as we have never paid cash dividends and have no current plans to pay any cash dividends on our common stock.

The fair value of stock options granted to employees, directors and non-employees was estimated on the date of grant using the Black-Scholes option-pricing model, with the following range of assumptions for the years ended December 31, 2019 and 2018:

	Years Ended December 31,	
	2019	2018
Risk-free interest rate	2.2%	3.1%
Expected dividend yield	—%	—%
Expected term (in years)	6.1	6.1
Expected volatility	76.8%	80.7%

These assumptions represented our best estimates, but the estimates involve inherent uncertainties and the application of our judgment. As a result, if factors change and we use significantly different assumptions or estimates, our stock-based compensation expense could be materially different.

The following table presents the grant dates, number of underlying shares of common stock and the per share exercise prices of stock options granted between January 1, 2018 and the date of this prospectus, along with the fair value per share utilized to calculate stock-based compensation expense:

Grant Date	Type of Award	Number of Common Shares	Exercise Price of Award per Share(1)	Fair Value of Common Stock per Share on Grant Date	Per Share Estimated Fair Value of Award(2)(3)
November 5, 2018	Option	57,432	$ 2.76	$ 2.76	$ 2.07
March 6, 2019	Option	183,130	$ 2.76	$ 2.76	$ 1.72
June 20, 2019	Option	33,926	$ 4.49	$ 4.49	$ 3.10
September 24, 2019	Option	93,541	$ 4.49	$ 8.63(4)	$ 6.70
February 6, 2020	Option	109,239	$ 8.63	$ 8.63	$ 5.83

(1) The Exercise Price of Award per Share represents the fair value of our common stock on the date of grant, as determined by our board of directors, after taking into account our most recently available contemporaneous valuations of our common stock as well as additional factors that may have changed since the date of such contemporaneous valuations through the date of grant.

(2) The Per Share Estimated Fair Value of Award reflects the fair value of options as estimated at the date of grant using the Black-Scholes option-pricing model.

(3) For the purposes of recording stock-based compensation for stock options granted to non-employees, upon adoption of ASU No. 2018-07 on January 1, 2019, we measure the fair value of the award at the grant date rather than on an accelerated attribution basis over the vesting period and recognize non-employee stock-based compensation expense over the related service period of the non-employee award. Prior to adoption of ASU No. 2018-07, we measured the fair value of the award on the service completion date (vesting date). At the end of each reporting period prior to completion of the services, we re-measured the value of any unvested portion of the award based on the then-current fair value of the award and adjusted expense accordingly.

(4) We undertook a retrospective valuation of the fair value of our common stock as of September 19, 2019 and this value represents our estimated fair value per common share in accordance with such retrospective valuation, as no contemporaneous valuation was performed at the time of such grants.

Determination of Fair Value of Common Stock

As a private company with no active public market for our common stock, our board of directors has historically determined the fair value of our common stock on each date of grant, with input from management. Our board of directors periodically determined the estimated per share fair value of our common stock at various dates using contemporaneous valuations performed by third parties. Once a public trading market for our common stock has been established in connection with the completion of this offering, it will no longer be necessary for us to estimate the fair value of our common stock in connection with our accounting for stock options.

We performed contemporaneous valuations, with the assistance of a third-party specialist, as of September 30, 2018, May 31, 2019 and January 23, 2020, which resulted in valuations of our common stock of $2.76, $4.49 and $8.63 per share, respectively. As no contemporaneous valuation was performed at the time of such grants, we performed a retrospective valuation as of September 19, 2019, which resulted in a valuation of our common stock of $8.63 per share. In conducting the valuations, we considered all objective and subjective factors that we believed to be relevant for each valuation conducted, including our best estimate of our business condition, prospects and operating performance at each valuation date. Within the valuations performed, a range of factors, assumptions and methodologies were used. The significant factors included:

- the lack of an active public market for our common stock and redeemable convertible preferred stock;
- the prices at which we sold shares of our redeemable convertible preferred stock in arm's length transactions and the superior rights, preferences and privileges of the convertible preferred stock relative to our common stock, including the liquidation preferences of our preferred stock;
- our results of operations and financial condition, including cash on hand;
- the material risks related to our business;
- our stage of development and business strategy;
- the composition of, and changes to, our management team and board of directors;
- the market performance of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed initial public offerings, or IPOs, of companies in the life sciences and biotechnology sectors; and
- the likelihood of achieving a liquidity event such as an IPO given prevailing market conditions.

Historically, the dates of our valuations have not coincided with the dates of our stock-based compensation grants. In determining the exercise prices of the stock options granted, our board of directors considered, among other things, the most recent valuations of our common stock and our assessment of additional objective and subjective factors we believed were relevant as of the grant date. The additional factors considered when determining any changes in fair value of our common stock between the most recent valuation and the grant dates included the status of our stage of research and development, our operating and financial performance and current business conditions. The fair value of 93,541 options granted on September 24, 2019 was determined retrospectively as no contemporaneous valuation was performed at the time of such grants.

There are significant judgments and estimates inherent in the determination of the fair value of our common stock. These judgments and estimates are management's best estimates and include assumptions regarding our future operating performance, the time to completing an initial public offering or other liquidity event, the related company valuations associated with such events and the determinations of the appropriate valuation methods. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per common share could have been different.

Common Stock Valuation Methodologies

Our common stock valuations were prepared in accordance with the guidelines in the American Institute of Certified Public Accountants Practice Aid, V*aluation of Privately-Held Company Equity Securities Issued as Compensation*, which prescribes several valuation approaches for determining the value of an enterprise, such as the cost, market and income approaches, and various methodologies for allocating the value of an enterprise to its capital structure and specifically the common stock.

Our common stock valuation as of September 30, 2018 was prepared using an option pricing method, or OPM, framework and utilized a recent transactions market approach for inferring the equity value implied by our recently completed sales of Series B redeemable convertible preferred stock. 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 preference at the time of the liquidity event, such as a strategic sale or a merger. A discount to reflect a lack of marketability of 40% was then applied to arrive at a $2.76 per share valuation of our common stock.

Our common stock valuation as of May 31, 2019 was prepared using a hybrid method of two potential liquidity outcomes: a merger and acquisition scenario utilizing the Guideline Transaction approach and an IPO scenario utilizing the Direct Waterfall approach. The hybrid method is a probability-weighed expected return method, or PWERM, where the equity value in one or more scenarios is calculated using the OPM. 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 and probability weighted to arrive at an indication of value for the common stock. For the May 31, 2019 valuation, we (i) assigned a 90% probability of occurrence to the merger and acquisition scenario, with a 30% weighted average cost of capital within this scenario, then reflected a calculated discount for lack of marketability of 34.5%; and (ii) we assigned a 10% probability of occurrence to the IPO scenario, with a 30% weighted average cost of capital and a 0.75-year estimated term to an IPO event, then reflected a calculated discount for lack of marketability of 15%.

Our common stock valuation as of September 19, 2019 was prepared using a hybrid method of two potential liquidity outcomes: a merger and acquisition scenario utilizing the Guideline Transaction approach and an IPO scenario utilizing the Direct Waterfall approach. For the retrospective September 19, 2019 valuation, we

(i) assigned a 60% probability of occurrence to the merger and acquisition scenario, with a 25% weighted average cost of capital within this scenario, then reflected a calculated discount for lack of marketability of 30%; and (ii) we assigned a 40% probability of occurrence to the IPO scenario, with a 25% weighted average cost of capital and a 0.53-year estimated term to an IPO event, then reflected a calculated discount for lack of marketability of 10%.

Our common stock valuation as of January 23, 2020 was prepared using a recent transactions market approach for inferring the equity value implied by our recent sales of Series C redeemable convertible preferred stock and a hybrid of the OPM and Direct Waterfall, including a future IPO scenario utilizing the Direct Waterfall approach, to allocate the total equity value. For the January 23, 2020 valuation, we (i) assigned a 45% probability of occurrence to the merger and acquisition scenario and applied a discount for lack of marketability of 30%; and (ii) we assigned a 55% probability of occurrence to the IPO scenario, with a 25% weighted average cost of capital and a 0.19-year estimated term to an IPO event, then reflected a calculated discount for lack of marketability of 5%.

Tranche Rights

Our sale of Series B redeemable convertible preferred stock provided our investors with the right to participate in a subsequent offering of Series B redeemable convertible preferred stock in the event specified development milestone was achieved. We classified the tranche rights as a derivative liability on our consolidated balance sheet because it met the definition of a freestanding financial instrument that could have required the Company to transfer assets upon exercise. We remeasured the derivative liability associated with the tranche right to fair value at each reporting date, and recognized changes in the fair value of the derivative liability as a component of other income (expense) in our consolidated statements of operations and comprehensive loss. The fair value of the derivative liability was determined using the Black-Scholes option pricing model, which considered as inputs (a) the expected stock price volatility of the underlying common stock, (b) the expected term of the tranche right, (c) the risk-free interest rate and (d) expected dividends.

Results of Operations

Comparison of the Years Ended December 31, 2019 and 2018

The following table summarizes our results of operations for the years ended December 31, 2019 and 2018 (in thousands):

	Years Ended December 31,		Dollar Change
	2019	2018	
Grant revenues	$ —	$ 1,244	$ (1,244)
Operating expenses:			
Research and development	12,032	4,975	(7,057)
General and administrative	4,487	3,528	(959)
Total operating expenses	16,519	8,503	(8,016)
Loss from operations	(16,519)	(7,259)	(9,260)
Other income:			
Interest income (expense), net	213	36	177
Other income, net	—	10	(10)
Change in fair value of tranche liability	—	1,184	(1,184)
Total other income, net	213	1,230	(1,017)
Net loss	$ (16,306)	$ (6,029)	$ (10,277)

Revenue

Grant revenue decreased from $1.2 million for the year ended December 31, 2018 to $0 for the year ended December 31, 2019. The decrease was a result of the conclusion of our activities related to the NIH awards.

Research and Development Expenses

Research and development expense increased by $7.0 million to $12.0 million for the year ended December 31, 2019 from $5.0 million for the year ended December 31, 2018.

The increase in research and development expense was primarily attributable to an increase in clinical development external costs of $3.5 million for the year ended December 31, 2019, primarily as a result of Phase 2 LANTERN clinical trial costs associated with LYR-210; an increase in chemistry, manufacturing and controls costs of $0.7 million for the year ended December 31, 2019, primarily as a result of increased spending on LYR-210 as it began the Phase 2 LANTERN clinical trial; an increase in employee compensation and benefits of $1.1 million for the year ended December 31, 2019, primarily as result of an increase in headcount and a decrease in charges to Arsenal Medical, Inc., or Arsenal, a company which shared certain common owners with us, for employee compensation and benefit costs related to our employees working on Arsenal-sponsored projects in accordance with the terms of the Transition Services Agreement between the two companies. Additionally, research and development expense increased by $1.4 million for the year ended December 31, 2019, as a result of a decrease in non-employee related charges to Arsenal and a resulting increase in facilities and allocated expenses.

General and Administrative Expenses

General and administrative expense increased by $1.0 million from $3.5 million for the year ended December 31, 2018 to $4.5 million for the year ended December 31, 2019.

The increase in general and administrative expenses was primarily attributable to an increase in employee compensation and benefits of $0.3 million for the year ended December 31, 2019, primarily due to an increase in headcount and related expenses; an increase in consulting and professional services of $0.5 million for the year ended December 31, 2019, primarily as a result of increased consulting and professional fees resulting from the growth in our general business operations; and the write-off the $0.2 million receivable from the NIH as a result of the conclusion of our activities related to the NIH awards.

Interest Income (Expense), net

Interest income (expense), net consists of interest income earned on our cash and cash equivalents and non-cash interest expense incurred on our convertible notes payable. Interest income increased $0.2 million from $36,000 for the year ended December 31, 2018 to $0.2 million for the year ended December 31, 2019. The increase was attributable to the interest earned on higher average cash and cash equivalents balances during the year ended December 31, 2019 after the closing of the second tranche of our Series B redeemable convertible preferred stock financing in October 2018.

Change in Fair Value of Tranche Liability

Change in fair value of tranche liability consists of the change in fair value of the tranche rights related to the sale of our Series B redeemable convertible preferred stock. It decreased from $1.2 million for the year ended December 31, 2018 to none for the year ended December 31, 2019. The decrease was attributable to the change in fair value of the tranche rights which were settled in October 2018.

Liquidity and Capital Resources

Sources of Liquidity

We have funded our operations from inception through December 31, 2019 primarily through gross proceeds of $131.8 million from sales of our redeemable convertible preferred stock and $16.8 million from government contracts. The following table provides information regarding our total cash and cash equivalents at December 31, 2019 and 2018 (in thousands):

	As of December 31,	
	2019	2018
Cash and cash equivalents	$ 9,808	$ 23,888

Cash Flows

The following table provides information regarding our cash flows for the years ended December 31, 2019 and 2018 (in thousands):

	Years Ended December 31,	
	2019	2018
Net cash used in operating activities	$ (13,754)	$ (6,640)
Net cash used in investing activities	(211)	(37)
Net cash (used in) provided by financing activities	(115)	29,213
Net (decrease) increase in cash and cash equivalents	$ (14,080)	$ 22,536

Net Cash Used in Operating Activities

The cash used in operating activities resulted primarily from our net losses adjusted for non-cash charges and changes in components of working capital.

Net cash used in operating activities was $13.8 million for the year ended December 31, 2019 compared to $6.6 million for the year ended December 31, 2018. The increase in cash used in operating activities of $7.2 million was attributable to:

- $10.3 million increase in net loss;
- $1.1 million increase in non-cash charges for the year ended December 31, 2019 primarily because there was no non-cash income in the year ended December 31, 2019, which differed from the prior year which had $1.2 million of non-cash income from the change in fair value of the tranche liability; and
- $2.0 million increase in changes in the components of working capital.

Net Cash Used in Investing Activities

Net cash used in investing activities was $0.2 million for the year ended December 31, 2019 compared to $37,000 for the year ended December 31, 2018. The increase in cash used for investing activities of $0.2 million was attributable to an increase in purchases of property and equipment.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was $0.1 million for the year ended December 31, 2019 compared to $29.2 million for the year ended December 31, 2018. The decrease in cash provided by financing activities of $29.1 million was attributable to:

- net proceeds of $28.7 million from the sale of our Series B redeemable convertible preferred stock and the $0.5 million of proceeds from the sale of our convertible notes payable during the year ended December 31, 2018;
- $0.1 million increase in proceeds from the exercise of common stock options in the year ended December 31, 2019 compared to the year ended December 31, 2018; and
- $0.2 million in payments for deferred financing costs in the year ended December 31, 2019.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development for, initiate later stage clinical trials for, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents and the funds we raised in January 2020 will enable us to fund our operating expenses and capital expenditure requirements into the fourth quarter of 2023. We have based this estimate on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Our future capital requirements will depend on many factors, including:

- the costs of conducting future clinical trials of LYR-210;
- the costs of manufacturing additional material for one or more pivotal Phase 3 clinical trials of LYR-210 and potential future clinical studies we might conduct for our other product candidates;
- the costs of scaling up our manufacturing process and supply chain capacity to provide sufficient quantities of LYR-210 for the potential commercialization of LYR-210 if our clinical development program is successful and we obtain marketing approval;
- the advancement of LYR-220;
- the scope, progress, results and costs of discovery, preclinical development, laboratory testing and clinical trials for other potential product candidates we may develop, if any;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements we might have at such time;

- the costs and timing of future commercialization activities, including product sales, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;
- the amount of revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;
- the costs of preparing, filing and prosecuting patent applications, obtaining, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- our headcount growth and associated costs as we expand our business operations and our research and development activities; and
- the costs of operating as a public company.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interests may be diluted, and the terms of these securities may include liquidation or other preferences that could adversely affect your rights as a common stockholder. Any debt financing, if available, may involve agreements that include restrictive covenants that limit our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends, that could adversely impact our ability to conduct our business.

If we raise funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Contractual Obligations

The following table summarizes our significant contractual obligations as of payment due date by period at December 31, 2019 (in thousands):

	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Operating lease obligation[1]	$ 3,653	$ 1,059	$ 2,594	$ —	$ —
Total	$ 3,653	$ 1,059	$ 2,594	$ —	$ —

(1) Represents future minimum lease payments under our non-cancelable operating lease which expires April 2023. The minimum lease payments above do not include any related common area maintenance charges, operating expenses or real estate taxes.

We enter into agreements in the normal course of business with CROs for clinical trials, third party manufacturers for clinical supply manufacturing, professional consultants for expert advice and other vendors for other services for operating purposes. We have not included these payments in the table of contractual obligations above since the contracts do not contain any minimum purchase commitments and are cancelable at any time by us, generally upon 30 days prior written notice and therefore we believe that our non-cancelable obligations under these agreements are not material.

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 under applicable SEC rules.

Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to changes in interest rates. As of December 31, 2019 and 2018, our cash equivalents consisted of interest-bearing checking accounts. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term nature and the low risk profile of our interest-bearing accounts, an immediate 10% change in interest rates would not have a material effect on the fair market value of our cash and cash equivalents or on our financial position or results of operations.

We are not currently exposed to significant market risk related to changes in foreign currency exchange rates; however, we have contracted with and may continue to contract with foreign vendors located in Europe, Australia and New Zealand. Our operations may be subject to fluctuations in foreign currency exchange rates in the future.

Inflation generally affects us by increasing our clinical trial costs. We do not believe that inflation had a material effect on our business, financial condition or results of operations during the years ended December 31, 2019 and 2018.

Emerging Growth Company Status

The Jumpstart Our Business Startups Act of 2012, or the JOBS Act, permits an “emerging growth company” such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies.

We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an emerging growth company, or EGC, we intend to rely on certain of these exemptions, including exemptions from the requirement to provide an auditor’s attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act and from any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis.

BUSINESS

Overview

We are a clinical-stage therapeutics company focused on the development and commercialization of novel integrated drug and delivery solutions for the localized treatment of patients with ear, nose and throat, or ENT, diseases. Our proprietary technology platform, XTreo, is designed to precisely and consistently deliver medicines directly to the affected tissue for sustained periods with a single administration. Our initial product candidates, LYR-210 and LYR-220, are bioresorbable polymeric matrices designed to be administered in a brief, non-invasive, in-office procedure and intended to deliver up to six months of continuous drug therapy to the sinonasal passages for the treatment of chronic rhinosinusitis, or CRS. The therapeutic embedded within LYR-210 and LYR-220 is mometasone furoate, or MF, which is the active ingredient in various U.S. Food and Drug Administration, or FDA, approved drugs and has a well-established efficacy and safety profile. CRS is an inflammatory disease of the paranasal sinuses which leads to debilitating symptoms and significant morbidities and affects approximately 14 million people in the United States. We are advancing LYR-210 as a potential preferred alternative to surgery in an ongoing Phase 2 clinical trial, which we refer to as our LANTERN clinical trial, for CRS patients who have failed medical management, and, subject to the impact of COVID-19 on our business, we expect to report topline data by the end of 2020. In our Phase 1 clinical trial, LYR-210 met its primary safety endpoint, and we observed that patients generally experienced significant and rapid, clinically meaningful and durable improvement on a patient symptom severity scale through week 25, which was the end of the trial. We are also developing LYR-220 for use in CRS patients who have an enlarged nasal cavity due to sinus surgery but continue to require treatment to manage CRS symptoms, and, subject to the impact of COVID-19 on our business, we intend to initiate a proof-of-concept clinical trial for LYR-220 by the end of 2021. Beyond CRS, we believe our XTreo platform has potential applications in other disease areas, which we are actively exploring to further broaden its therapeutic potential.

CRS has been described in the literature as an “unrecognized epidemic” due to its high prevalence, its substantial impact on patient quality of life and the significant limitations of currently available treatment options. We estimate that sinusitis, which includes both CRS and acute rhinosinusitis, impacts approximately 12% of the adult population in the United States, or approximately 30 million people, making it the fifth most common condition in people under the age of 65 and more prevalent than diabetes or heart disease. Of this population, we estimate that approximately 14 million people are affected with CRS. Moreover, we estimate that approximately 8 million people are treated for CRS by physicians annually, of which approximately 4 million fail medical management every year. In the United States, over $60 billion is spent annually in direct treatment costs for sinusitis, including approximately $5 billion on sinus surgeries.

We believe LYR-210 and LYR-220, if successfully developed and approved, will be able to treat the entire spectrum of CRS patients, including pre- and post-surgical patients and those with and without nasal polyps, with up to six months of treatment in a single administration. Our most advanced product candidate, LYR-210, is being evaluated in CRS patients who have failed medical management but have not undergone endoscopic sinus surgery, who we refer to as surgically-naïve CRS patients, in our ongoing randomized, sham procedure-controlled, patient-blinded, Phase 2 LANTERN clinical trial. We initiated this trial in May 2019 and, subject to the impact of COVID-19 on our business, we expect to report topline data by the end of 2020. In an open-label, multi-center Phase 1 clinical trial, we placed 40 LYR-210 matrices bilaterally in 20 patients at sites in New Zealand and Australia. LYR-210 met its primary safety endpoint in the Phase 1 trial, and we observed significant and rapid, clinically meaningful and durable improvement through week 25 in SinoNasal Outcome Test scores, or SNOT-22 scores, an established patient symptom severity scale. At week 24, improvement versus baseline was observed in 90% of patients, with similar activity observed across both polyp and non-polyp patients. Additionally, subject to the impact of COVID-19 on our business, we intend to initiate a proof-of-concept clinical trial for LYR-220 by the end of 2021, and to submit a supplemental new drug application, or sNDA, to the FDA for a potentially faster path to approval of LYR-220 if a new drug application, or NDA, for LYR-210 is approved by the FDA.

Our XTreo Platform

XTreo, our innovative and proprietary drug delivery platform, is designed to locally and continuously deliver small molecule drugs to the affected tissue over a sustained period of time from a single administration. The platform is comprised of three interrelated technology components:

- a biocompatible mesh scaffold, which is designed to maximize surface area for drug release while maintaining underlying tissue function;
- an engineered elastomeric matrix, which means a polymeric matrix composed of polymers having elastic characteristics, which has advanced physical properties resulting in implants with "shape memory" that dynamically adapt to nasal anatomy; and
- a versatile polymer-drug complex, which can be customized for the treatment of various chronic diseases treatable with ENT delivery to achieve the desired drug dose and drug elution rate.

Chronic Rhinosinusitis: A Prevalent Disease with High Unmet Medical Needs

CRS is an inflammatory disease of the paranasal sinuses causing the soft, moist layer of mucus-producing tissue, or mucosa, that lines the sinuses to become swollen and inflamed, leading to significant patient morbidities. The inflammation may be caused by infections, allergies or environmental factors, as well as structural issues such as blockages of an ostium. Patients with CRS on average experience a lower quality of life index than people suffering from congestive heart failure, angina, chronic obstructive pulmonary disease or back pain.

CRS has two phenotypes: CRS with nasal polyps, which are teardrop-shaped benign masses arising from the mucosa lining, and CRS without nasal polyps. The non-polyp form of CRS represents approximately 70%-to-90% of CRS patients. We estimate that approximately 8 million people are treated for CRS by physicians annually, of which approximately 4 million fail medical management every year.

Current Treatments and Their Limitations

The goals of therapy for CRS are to reduce mucosal swelling resulting from underlying inflammation, promote sinus drainage, and eradicate infections that may be present. The treatment of CRS is progressive in nature and typically begins with medical management, primarily with topical intranasal steroids and oral steroids. If this treatment is unsuccessful, an ENT physician may perform a sinus surgery.

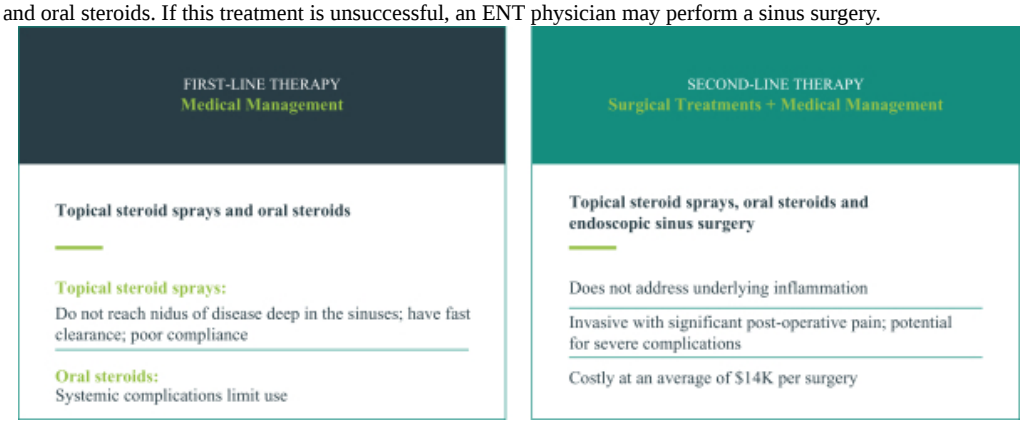


Figure 1. Current Primary Treatment Paradigm for CRS.

Currently, there are no FDA-approved drug therapies for CRS for non-polyp patients, although some drugs approved for nasal polyps are used off-label in this population.

Our Solution for CRS

LYR-210 is an anti-inflammatory implantable drug matrix based on our XTreo platform that is designed to consistently and locally elute MF to the inflamed mucosal tissue for up to six months in surgically-naïve CRS patients who fail medical management. MF, the active ingredient in various FDA-approved drugs, has a well-established efficacy and safety profile, which we believe will support the development process for LYR-210. LYR-210 is designed to enable sustained drug delivery at difficult-to-access nasal inflammation sites without the need for patient compliance, while avoiding the systemic side effects associated with oral steroids. LYR-210 is designed to be administered in a brief, non-invasive, in-office procedure by an ENT physician under endoscopic visualization via a single-use applicator.

LYR-210 is currently being studied in our Phase 2 randomized, sham procedure-controlled, patient-blinded clinical trial, which we refer to as LANTERN, evaluating the safety and efficacy in surgically-naïve CRS patients who have failed previous medical management. The trial was designed to enroll 99 evaluable patients with the potential to increase to up to 150 patients and was initiated in May 2019 at sites in Australia, Austria, Czech Republic, New Zealand and Poland. In December 2019, the FDA cleared our investigational new drug application and, prior to the COVID-19 pandemic, we planned to open new sites in the United States. However, in light of recent developments relating to the COVID-19 global pandemic, and as described below, we discontinued enrollment at 67 patients and do not expect to open any sites in the United States. We are leveraging remote electronic data collection to enable us to complete the clinical assessments and generate sufficient information to design our Phase 3 clinical trial. As of April 2020, there were no reported serious adverse events in the Phase 2 LANTERN clinical trial. Subject to the impact of COVID-19 on our business, we expect to report topline data from the Phase 2 LANTERN clinical trial by the end of 2020. Subject to the impact of COVID-19 on our business, we expect to (i) report six-month safety data and to hold a Type C meeting with the FDA in the first half of 2021 and (ii) submit our Phase 3 protocol design for LYR-210 to the FDA in the second half of 2021.

LYR-210 was previously studied in an open-label, Phase 1 clinical trial with 20 patients in New Zealand and Australia, and achieved its primary endpoint of safety at week 4. In the Phase 1 trial, we observed that patients generally experienced significant and rapid, clinically meaningful and durable improvement in SNOT-22 scores. Significant reduction in SNOT-22 scores was observed at week 1, and this reduction persisted through week 25, which was the end of the trial. The changes from baseline, or CFBL, in SNOT-22 score were statistically significant ($P < 0.01$) at all measured intervals. The average change from baseline in SNOT-22 score at week 1 was -13.0 points ($P=0.008$ to pre-treatment), achieving the minimal clinically significant difference of -8.9 points. Further, symptom relief as measured by SNOT-22 score was observed through the entire duration of the trial, achieving an average change from baseline of -20.5 points at week 24, the end of the treatment period ($P=0.00005$ to pre-treatment), and -20.0 points ($p < 0.0001$) at week 25, one week after the removal of LYR-210.

We are developing our second pipeline product candidate, LYR-220, for use in CRS patients who continue to require medical management despite having had sinus surgery. LYR-220 is also designed to utilize MF, but will employ an oversized matrix designed for patients whose nasal cavity is enlarged due to sinus surgery. LYR-220 is designed as a potential preferred alternative to revision sinus surgery and post-surgical medical management. Subject to the impact of COVID-19 on our business, we expect to initiate a proof-of-concept clinical trial for LYR-220 by the end of 2021.

We believe that the key potential benefits of our current investigational product portfolio, LYR-210 and LYR-220, include:

- **Clinical Activity**: We believe LYR-210 and LYR-220 have the potential to significantly improve symptoms by maintaining a steady, high dose of MF at the site of inflammation for up to six months with a single administration, without any dependence on patient compliance.

- **Patient Compliance**: Because drug delivery for LYR-210 and LYR-220 is designed to be sustained for up to six months with a single administration, the efficacy of LYR-210 and LYR-220 will not depend on patient compliance within the treatment period, unlike other CRS treatment options that require repeated daily administrations, such as topical intranasal steroids and oral steroids.

- **Patient Experience**: LYR-210 and LYR-220 are designed to be administered via a simple, in-office procedure every six months, which is intended to enhance convenience for patients, unlike the repeated daily medical management and/or time-consuming and painful surgery required by certain other CRS treatment options. Moreover, we believe patients may also benefit from the biocompatible, flexible structure of LYR-210 and LYR-220 that is designed to maximize comfort over the therapy period.

- **Physician Experience**: LYR-210 and LYR-220 are designed to enable physicians to perform the placement of LYR-210 and LYR-220 in-office in conjunction with an endoscopy procedure, thereby making the placement aligned with the existing care continuum for CRS patients and eliminating the need for physicians to schedule separate surgical time. Moreover, the elastomeric matrix encapsulates the underlying mesh fibers to facilitate removal.

- **Localized Delivery**: LYR-210 and LYR-220 are designed to benefit from our XTreo platform, which is intended to provide localized delivery to avoid systemic side effects that are common with certain other CRS treatment options, such as oral steroids.

- **Patient Applicability**: LYR-210 and LYR-220 are designed to treat the entire spectrum of CRS patients who have failed medical management, including pre- and post-surgical patients and those with and without polyps.

- **Pharmacoeconomic Impact**: LYR-210 and LYR-220 are designed as an alternative to surgery (initial or revision), and as such have the potential to provide significant savings to the healthcare industry by reducing the number and frequency of expensive surgical treatment options.

We believe LYR-210 and LYR-220, if approved, would be the only products able to deliver up to six months of continuous topical treatment in a single administration to treat the entire spectrum of CRS patients who fail medical management, including pre- and post-surgery patients and those with and without nasal polyps.

Intellectual Property and Barriers to Entry

We own all the material intellectual property rights related to our platform and product candidate portfolio. As of March 31, 2020, our product candidate portfolio is protected by 23 issued and 25 pending patents worldwide with claims directed to composition of matter, drug delivery and method of use, which, exclusive of possible patent term adjustments or extensions or other forms of exclusivity, are projected to expire between 2030 and 2037.

We also rely upon know-how, continuing technological innovation, and technical barriers to entry, including manufacturing and drug delivery complexities, to develop and maintain our competitive intellectual property position.

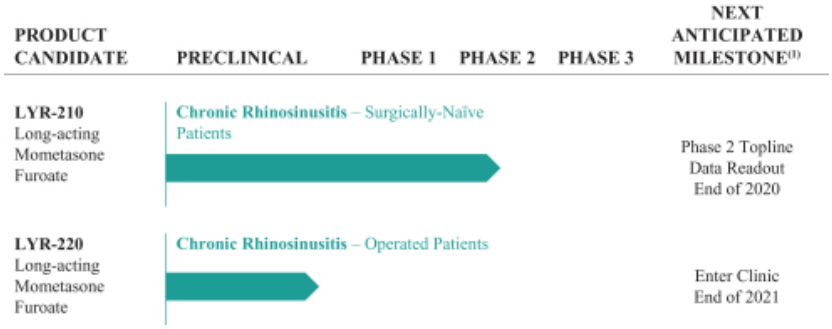
Management Team and Investors

Our management team has extensive drug development, manufacturing and commercialization experience across a broad spectrum of disease areas, for both drug and drug-device combination products, with a successful track record in large pharmaceutical, medical device and biotech companies. Additionally, our management team has been involved in the development of successfully approved and commercialized products such as Taxus (drug-eluting stent), AvoneX, Arikayce and Panhematin.

Further, we are supported by a leading group of biotech investors including, among others, ArrowMark Partners, Intersouth Partners, North Bridge Venture Partners, Perceptive Advisors, Polaris Venture Partners, RA Capital and Soleus Capital.

Our Pipeline

The current status of our product candidates is summarized below.



(1) Anticipated clinical milestones are subject to the impact of COVID-19 on our business.

Our Strategy

Our mission is to transform the ENT treatment paradigm by utilizing our proprietary drug delivery platform, XTreo, to develop safe and effective therapies for the treatment of debilitating diseases treatable with ENT delivery. We intend to achieve this through the following strategies:

- **Complete the development and secure FDA approval of LYR-210 for the treatment of CRS.** We believe LYR-210, if approved, is well positioned in the CRS treatment paradigm to provide a preferred alternative to surgery. LYR-210, which is currently in an ongoing randomized, sham procedure-controlled, patient-blinded Phase 2 LANTERN clinical trial, utilizes MF, the active ingredient in various FDA-approved drugs. Subject to the impact of COVID-19 on our business, we expect to report topline data from the Phase 2 LANTERN trial of LYR-210 by the end of 2020. Our goal is to advance LYR-210 through Phase 2 and into one or more pivotal Phase 3 clinical trials, followed by potential marketing approval through a 505(b)(2) NDA submitted to the FDA.

- **Advance our second product candidate, LYR-220, into the clinic to provide a comprehensive solution for CRS patients who have failed medical management and surgery.** We are developing a larger version of LYR-210 designed for use in the enlarged nasal cavity of CRS patients who have had sinus surgery. We believe LYR-220, if successfully developed and approved, is well positioned to provide a preferred alternative to revision surgery and post-surgical medical management. LYR-220 is currently in product feasibility studies. We plan to advance LYR-220 into a proof-of-concept clinical trial by the end of 2021, subject to the impact of COVID-19 on our business, and intend to seek approval through the sNDA pathway if an NDA for LYR-210 is approved by the FDA.

- **Build a commercialization infrastructure in the U.S. market for LYR-210 and LYR-220.** If any of our product candidates are approved, we plan to launch an efficient, go-to-market commercialization model focused on targeted outreach to our key physician, payer and patient audiences. We plan to build an in-house sales force that will target ENT physicians whose sub-specialty is general otolaryngology or rhinology, which together represent roughly 60% of the 12,000 ENT physicians in the United States. Ensuring physician and patient market access to our products will be critical to our success, and we plan to execute a holistic reimbursement strategy

that will integrate payer coverage and physician practice management initiatives. In addition, we also plan to selectively use cost-effective, patient-directed marketing strategies to further increase awareness among the CRS patient community of our products with the goal of increasing ENT physician visits. Finally, we plan to leverage our commercial infrastructure in the subsequent launch of LYR-220 and any future product candidates.

- **Maximize the value of our XTreo platform and expand our product pipeline.** Our XTreo platform provides a versatile drug development engine that enables us to focus on other indications where long-term delivery of existing treatments may provide improved local bioavailability and enhanced efficacy or safety. We plan to utilize our platform to identify additional product candidates, with an initial focus on conditions treatable with nasal delivery, potentially including allergic rhinitis, rare disorders where nasal disease contributes to the disease pathology and central nervous system disorders. In addition, we believe we can adapt our platform to target conditions treatable with delivery to other tissues beyond the nasal cavities, such as the ear.

- **Seek strategic collaborative relationships.** We intend to develop our product candidates on our own in the U.S. and retain all U.S. rights, but seek strategic collaborations ex-U.S. to facilitate the capital-efficient development of our product candidates. We may also enter into collaborative relationships within the U.S. for our future pipeline candidates. We believe these collaborations could potentially provide non-dilutive funding to advance our pipeline candidates while allowing us to benefit from the development expertise of our collaborators.

Our Technology Platform

XTreo, our innovative and proprietary drug delivery platform is designed to locally and continuously deliver small molecule drugs to the affected tissue over a sustained period of time from a single administration. Our technology platform, developed over the past decade, was first patented in 2009 by members of our team who have extensive experience in drug formulation and delivery, material science and biotechnology. This expertise has allowed us to significantly improve upon polymer drug delivery technology and add shape-memory properties to bioresorbable polymeric implants, one of our key innovations.

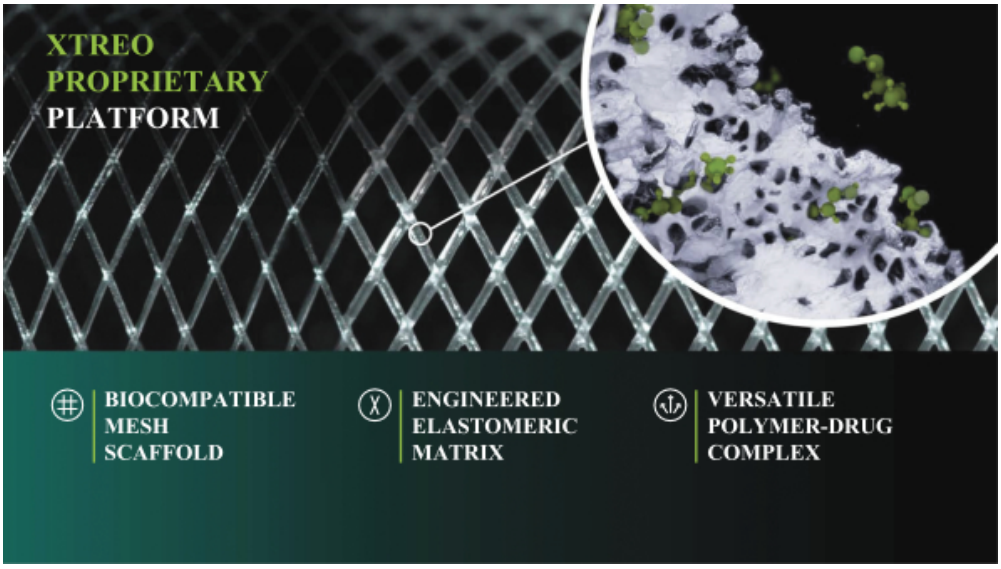


Figure 2. XTreo Proprietary Platform.

XTreo, our drug-eluting bioresorbable technology platform is comprised of three polymeric components, which are designed to work together to enable highly efficient, localized drug delivery (see Figure 2, above). This proprietary technology platform is designed to enable sustained delivery of medications for many months of therapy, targeting tissues deep in the ENT passages and potentially other diseased tissues that are not accessible with conventional therapeutic approaches. The components of our platform include:

- **Biocompatible Mesh Scaffold**—variants of poly(L-lactide-co-glycolide), or PLGA, braided to form an implantable mesh with a high surface area. Our biocompatible mesh scaffold is intended to provide the foundation for efficient drug delivery. We have designed the mesh scaffold to optimize surface area for drug release while maintaining underlying tissue function through an open-cell design. The mesh scaffold is comprised of bioresorbable polymers and is pliable to maximize patient comfort.

- **Engineered Elastomeric Matrix**—overlying elastomer of poly(L-lactide-co-e-caprolactone), or PLCL, coating that constrains the intersection points of the braid. Over the last decade we have developed a highly sophisticated and proprietary engineered elastomeric matrix which has advanced physical properties to dynamically conform to nasal anatomy. Its adaptive elastic tension, which gives it shape-memory to resist deformation, is key to ensuring persistent positioning in the target location. The matrix works in conjunction with the underlying mesh to exert outward retention force, keeping it in place as tissue remodels.

- **Versatile Polymer-Drug Complex**—active therapeutic embedded in a polymer designed to control its release. We have extensive drug-delivery know-how which has enabled us to design a versatile polymer-drug complex that can accommodate most small molecule drugs and achieve tunable elution profiles. We believe our versatile polymer-drug complex is potentially amenable to continuous, prolonged drug release across a wide range of drugs for different therapeutic applications. With proprietary bioresorbable polymer-drug formulations, we believe our platform can be used to customize controlled-release drugs for various chronic diseases treatable with ENT delivery and improve the efficacy of therapeutic properties of existing active pharmaceutical ingredients, or APIs, through more prolonged delivery.

The three integrated components are fundamental to the successful function and versatility of the XTreo technology. For application to a targeted tissue, the implant is compressed into a narrow applicator, which allows non-invasive placement deep within cavities of the ear, nose, and throat. The shape-memory properties ensure the implant self-expands as it is administered through the applicator to conformably fit within and adapt to the target anatomy. The implant is designed to be oversized for the target anatomy and therefore will push outwards to stay fixed at the target location. Over time, as inflammation recedes due to the local drug therapy, the shape-memory properties are intended to allow the implant to actively adapt to the anatomy and continue to stay in place to elute drug locally for a prolonged period.

In engineering the implant, we use polymers that are biocompatible and bioresorbable which, if left in place, would gradually dissolve over time. The polymers used in our formulations have established safety profiles as they have previously been used in FDA-approved therapeutics. The mesh scaffold and elastomeric matrix are composed of PLGA and PLCL elastomer, both of which are well-established biodegradable polymers commonly used in medical applications. The customizable polymer drug complex consists of the active therapeutic embedded in the inactive ingredients containing PLCL and poly(L-lactide), or PLA, to control the drug elution rate. The polymer composition and drug formulation are tailored to achieve the desired drug dose and dissolution rate. Our expertise allows us to balance polymer resorption with drug elution to achieve a sustained rate of drug release over months in addition to varying the dosing and release rates to provide chronic local treatment.

Chronic Rhinosinusitis and the Treatment Landscape

Sinuses are air-filled pockets within the bones of the face and skull. The four types of sinuses are frontal, ethmoid, sphenoid and maxillary (see Figure 3, below). One of each type of sinus lies on either side of the face.

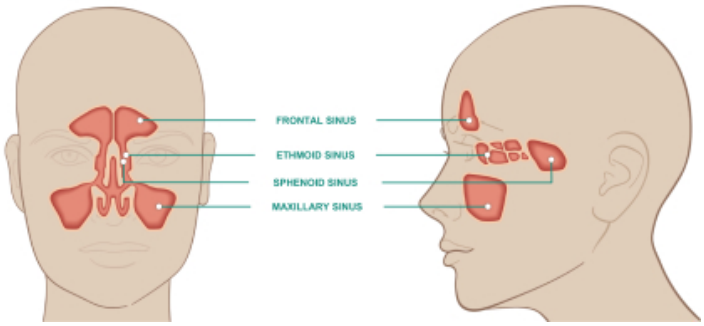


Figure 3. Illustration of Nasal Sinuses.

The sinuses are lined with a soft, moist layer of mucus-producing tissue, or mucosa. Mucus moistens the nasal lining and protects the body from inhaled impurities such as dust, pollutants and bacteria. Each of the maxillary, sphenoid and frontal sinuses has a corresponding ostium, or opening, through which mucus drains. The ethmoid sinuses are a series of cells with multiple, often interconnected openings and drainage pathways. The surface tissues of the sinuses are covered with millions of cilia, which are small, hair-like structures that act in coordination to sweep the mucus through the ostium of each sinus cavity to the back of the throat. The drainage of mucus is a normal process that keeps the sinuses healthy.

CRS is an inflammatory disease of the paranasal sinus causing the mucosa lining to become swollen and inflamed, leading to significant patient morbidities. The inflammation may be caused by infections, allergies or environmental factors, as well as structural issues such as blockages of an ostium. If one or more sinus drainage pathways becomes blocked, normal mucus drainage is prevented and damage to ciliary function may occur. There are two categories of sinusitis: acute and chronic. Acute sinusitis is transient in nature and lasts less than four weeks. Chronic sinusitis is more severe and lasts 12 weeks or longer. The term “chronic sinusitis” is generally used interchangeably with “CRS” in the medical community, and we refer to the condition as CRS in this prospectus. The four cardinal symptoms of CRS are nasal obstruction and congestion, facial pain and pressure, nasal discharge and olfactory loss (loss of sense of smell). Other symptoms include chronic headaches, bodily pain, fatigue, sleep deprivation, depression and recurrent infections. CRS may be diagnosed when two of the four cardinal symptoms persist for 12 weeks or longer and when inflammation is confirmed via endoscopy or CT scan. Patients with CRS experience a lower quality of life index than people suffering from congestive heart failure, angina, chronic obstructive pulmonary disease or back pain. In addition, CRS symptoms are estimated to cause patients to miss over 11 million workdays per year in the United States alone, resulting over $1 billion in indirect economic costs.

We estimate that sinusitis impacts approximately 12% of the adult population in the United States, or approximately 30 million people, making it the fifth most common condition in people under the age of 65, and more prevalent than diabetes or heart disease. Beyond the United States, sinusitis has a similarly high prevalence in Europe, with approximately 27 million cases in the EU5 (France, Germany, Italy, Spain and the United Kingdom), and in Asia, with approximately 104 million cases in China alone. Of the approximately 30 million people impacted by sinusitis in the United States, we estimate approximately 14 million are affected with CRS. Of these, we estimate that approximately 8 million people are treated for CRS by physicians annually, of which approximately 4 million fail medical management every year.

CRS has two phenotypes: CRS with nasal polyps, which are teardrop-shaped benign masses arising from the mucosa, and CRS without nasal polyps, with the non-polyp form representing approximately 70%-to-90% of CRS patients. Patients with polyps develop non-cancerous polyps on the chronically inflamed surfaces, but both subgroups typically share the same symptoms. Currently, the majority of our competitors target CRS patients with polyps, and there are no approved treatments for CRS without polyps, creating a vast untapped market opportunity for a more effective treatment solution. Given no approved treatments for CRS without polyps exist, there is only off-label drug usage for this segment of the patient population.

Current treatments are directed towards managing the symptoms of CRS through a combination of medical management and surgical intervention techniques. The first line of therapy is medical management involving nasal saline irrigation, intranasal corticosteroidal sprays, oral steroids and antibiotics for patients with an active sinus infection. CRS is the most common reason for adult outpatient antibiotic use in the United States. It has been estimated that antibiotic use to treat infections relating to CRS may cost more than $150 million per year in the aggregate. Patients whose symptoms persist despite medical management are generally recommended to undergo functional endoscopic sinus surgery (or FESS) or balloon sinus dilation (or BSD), or both. FESS is a highly invasive surgery performed in the operating room, under full anesthesia, to open the blocked sinus pathways by removing inflamed tissue and bone using surgical tools. BSD is a less severe form of endoscopic sinus surgery, often used in combination with FESS, in which small balloon catheters are inserted and inflated to drain the large nasal sinuses. Although FESS and BSD can improve symptoms and quality of life, limitations remain. Neither correct the underlying cause of the inflammation and patients who undergo either or both procedures often experience significant pain and require continued post-operative medical therapy to maintain improvements, with a high incidence of repeat surgeries.

Medical Management

The first-line of treatment for CRS is medical therapy, which typically includes nasal saline irrigation, corticosteroids, and antibiotics for patients with an active infection.

Steroids represent the current first-line standard of care for CRS patients, given they are generally pharmacologically effective at treating inflammation. Intranasal steroid sprays and aerosols, commonly indicated for rhinitis, or inflammation of the nasal passage, are routinely prescribed and used over-the-counter for the treatment of CRS symptoms. Physicians may also prescribe oral steroids on an episodic basis to patients who have not received sufficient symptomatic relief. They are generally prescribed for short-term use by patients with severe symptoms or exacerbations of CRS who are already on maintenance therapy, such as nasal irrigation or intranasal corticosteroid sprays. Finally, physicians may prescribe antibiotics for patients with an active infection.

Intranasal steroid sprays, oral steroids and antibiotics each have significant limitations:

- While intranasal steroid sprays avoid systemic exposure and thus lack such serious side effects, penetration of the spray beyond the nasal cavities into the paranasal sinuses—the site of inflammation—is limited, particularly in pre-operative patients, despite requiring multiple, inconvenient administrations per day. In a published study, a large fraction of the spray is deposited in the anterior nasal cavity without any significant penetration into the paranasal sinuses. Additionally, intranasal spray efficacy is also limited due to fast clearance rates, as it has been demonstrated that mucocilliary action removes approximately 50% of the spray from the nasal cavity within 10 to 15 minutes of dosing. Poor patient compliance further limits the effectiveness of intranasal steroid sprays. While a recently launched intranasal exhalation delivery product has been developed to enhance the delivery of steroid to areas of inflammation within the sinus, the product is still subject to the limitations resulting from fast clearance and poor patient compliance.

- Oral steroid therapy is effective at reaching the sinus lining, but it does so by means of systemic exposure and therefore carries the risk of serious side effects associated with prolonged use,

including glaucoma, bone loss, weight gain, psychosis and difficulty in controlling blood glucose levels in patients with diabetes. Additionally, studies have shown that long-term benefits from their use are limited.

- Although antibiotics are generally prescribed for patients with an active infection, their role for treatment of CRS is unclear, and there is limited evidence that supports their use for the treatment of CRS. In addition, their prolonged use can lead to antibiotic resistance, and CRS is identified as a major target in national efforts to reduce unnecessary antibiotic intervention.

Medical management is used as a first-line of medical therapy for pre-operative patients and as maintenance therapy for post-operative patients. Therefore, patients in both stages of the condition are managed medically and hence are subject to the limitations described above. Based on published medical literature, we estimate that at least 50% of CRS patients who are seen by ENT physicians and receive medical management remain symptomatic.

Sinus Surgery

The primary alternative after medical management is FESS, an invasive surgery during which a physician enlarges the inflamed and obstructed sinus pathways by removing inflamed tissue and bone in order to facilitate normal sinus drainage and aeration as well as provide greater access for delivery of steroids. First introduced in the United States in the 1980s, FESS is considered the standard of care for surgical intervention to treat CRS. However, while approximately 400,000 FESS procedures are performed each year, many surgical candidates opt not to have surgery given that it does not correct the underlying inflammation or obviate the need for medical management. Approximately, 65% of patients have recurrent symptoms post-FESS and up to 20% require a revision surgery.

FESS is a highly invasive procedure, requiring general anesthesia and involving significant post-operative discomfort. During this procedure, a physician inserts an endoscope into the nasal cavity to provide visualization of the patient’s anatomy, the turbinate is identified with help of the endoscope and the uncinated process is removed exposing the ethmoid bulla. Surgical instruments, powered cutting tools and balloon dilation devices are used to remove or dilate the obstructive tissue and bone. Given the essential role of the ethmoid bulla in sinus function, the ethmoid sinuses are then opened in 75%-to-85% of FESS procedures. The dependent sinuses each drain into the ethmoid sinuses through ostia, which may be enlarged by either surgically removing tissue or via balloon dilation. Following the surgical intervention, physicians often pack the newly opened ethmoid sinuses with gauze or other obstructive sinus packing materials to hold the sinus cavities open. A follow-up office visit is required several days after the procedure to remove the sinus packing materials and depending on the circumstances a patient may have to visit the surgeon two to three times a week for a period of time using nasal irrigation or will be allowed to carry out simple nasal douching several times a day. A typical FESS procedure costs approximately $14,000 on average.

Since the introduction of FESS, several new technologies, such as image-guided surgical navigation systems, powered surgical instruments and BSD devices have expanded the addressable patient population who can benefit from FESS. For instance, BSD devices were developed to be used in combination with traditional surgical instruments during FESS to treat the dependent sinuses and have now allowed for treatment of some patients in the physician office setting as a standalone procedure. The cost of a BSD procedure can range from $3,000 to $7,000 per treatment.

On an annual basis, approximately 4 million CRS patients fail medical management, but ultimately only approximately 400,000 patients choose to undergo an endoscopic sinus surgery each year. Physicians report that many patients, when presented with sinus surgery as a treatment option, opt to forego the procedure. Some patients regard the often temporary benefits provided by surgery as not worth the expense, recovery time or use of general anesthesia.

While sinus surgery is the standard of care for treating CRS after the failure of medical management, it has several significant limitations:

- ***Invasive surgery with significant post-operative pain and nasal care.*** FESS is an invasive surgery that results in irreversible changes to the anatomy and significant post-operative pain, discomfort and recovery time. As with any invasive surgery, a FESS entails the potential for bleeding, infection and scar tissue.

- ***Requirement for post-operative maintenance.*** As the underlying inflammation of CRS is still unaddressed by sinus surgery, patients are required to post-operatively maintain their treatment with medical management. Additionally, reports have shown nasal polyp regrowth following surgery in many cases and post-nasal discharge often times remains a challenge.

- ***Additional FESS procedures may be needed.*** Approximately 65% of patients have recurring symptoms post-FESS, and approximately 20% of patients will require a revision of sinus surgery within five years, 43% of whom will be within the first post-operative year. This is because sinus surgery does not cure the underlying cause of the inflammation of the sinus pathways, which can cause repeat flare ups. We believe the risk of potential revision surgery is a significant deterrent to some patients that would otherwise undergo sinus surgery.

- ***Potential for severe complications.*** As a result of the use of surgical tools in close proximity to the brain, eyes and other critical anatomy, the potential for significant complications is a concern of physicians and patients alike. The risks of FESS, particularly in the frontal sinuses, cause some ENT physicians to avoid performing surgery in the frontal sinus drainage pathway. Major complications, such as cerebral spinal fluid leaks, swelling of the eye or blindness, occur in approximately 0.3% of FESS procedures.

Drug Eluting Stents and Monoclonal Antibodies

For patients with nasal polyps who remain symptomatic following surgery, who we refer to as refractory patients, certain non-surgical options are available. A steroid-eluting implant that continuously delivers three months of MF was approved to treat CRS in adults with nasal polyps. In addition, a subcutaneously-administered biweekly anti-IL-4/IL-13 monoclonal antibody, or mAb, was recently approved also to treat CRS in adults with nasal polyps.

However, each of these treatments has limitations. The drug-eluting stent has only a three month elution profile, presenting a more burdensome treatment regimen and requiring patient compliance. Meanwhile, the mAb is generally reserved for the most refractory patients, given that its long-term systemic safety is unknown and that it is priced at a significant premium even when compared to surgical options. In addition, both of these treatment options are only approved for the treatment of nasal polyps, leaving non-polyp patients (who represent approximately 70%-to-90% of all CRS patients) who are refractory with no approved treatment options.

LYR-210 for the Treatment of CRS

We believe LYR-210, if successfully developed and approved, has the potential to become a preferred alternative to surgery for the treatment of CRS. It is the only product candidate that we are aware of that is designed to provide up to six months of local delivery of anti-inflammatory medication with a single administration. The brief, non-invasive, in-office procedure allows for its implantation without the need for surgery. Further, we believe our studies have shown that LYR-210 has the potential to be an effective treatment for both patients with and without polyps. We believe LYR-210 has the potential to be a safe, effective and broadly applicable CRS treatment, designed to enhance patient comfort and physician experience and eliminate

patient compliance issues associated with other CRS treatments, such as intranasal steroid sprays, while achieving reduced costs compared to other CRS treatments, such as sinus surgery.

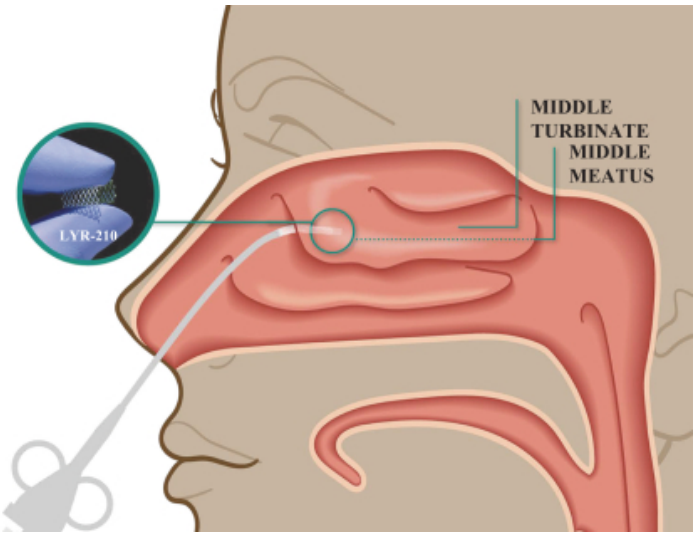


Figure 4. Illustration of Placement of LYR-210 in Middle Meatus.

LYR-210 is an investigational miniaturized local drug delivery system designed to fit within, and conform to, the confined space of a surgically-naïve patient's middle meatus, an air-containing space that plays a fundamental role in drainage of the paranasal sinuses (see Figure 4, above). LYR-210 consists of MF, the active ingredient in various FDA-approved drugs, embedded in biocompatible polymers to aid in the controlled and sustained delivery of MF to the sinonasal mucosal tissue from a single drug administration. LYR-210 has a tubular braid configuration with a uniform diamond pattern throughout and is 13 mm in diameter and 10 mm in length in the unconstrained state. It has elastic properties to promote patient comfort and is designed to be self-retaining against the mucosal tissue to allow effective drug transfer. The matrix is comprised of a base structure and a drug formulation. The base structure is composed of PLGA and PLCL elastomer to provide a 3-dimensional structure and elasticity. The drug formulation matrix consists of the active ingredient, MF, embedded in the inactive ingredients containing PLCL and PLA to control the release rate of MF. The composition and mass of the drug formulation matrix is specified to achieve the drug dose over time.

LYR-210 is intended to be administered bilaterally into the non-operated middle meatus by an ENT physician under endoscopic visualization via a provided, single use applicator. It is designed for office-based administration performed with topical anesthesia. Once administered, LYR-210 is designed to gradually release MF to the inflamed mucosal tissue for up to six months from a single administration. LYR-210 can be removed at six months or earlier at the physician's discretion using standard instruments and, if needed, replaced with a new LYR-210. LYR-210 is made with bioresorbable polymers that, if left in place, would gradually dissolve over time. Moreover, the elastomeric matrix encapsulates the underlying mesh fibers to facilitate removal.

Overview of Our Clinical Development

The table below summarizes our completed and ongoing clinical trials for LYR-210 for CRS in patients who have failed medical management and have not undergone endoscopic sinus surgery.

Trial	Status	Trial Design	Trial Objectives	Trial Results

Phase 1	Completed; Results presented in October 2018	• Prospective, multi-center, non-randomized, single-arm, open-label clinical trial
		• 25 week trial, including 24 week treatment period, plus one week post-removal
		• Bilateral 2,500 mg dose
		• 20 patients
		• 5 study sites
			• Study objective: Evaluate the safety and feasibility over 24 weeks of continuous anti-inflammatory treatment with a single administration of LYR-210
			• Primary endpoint: Product-related serious adverse events from baseline to 4 weeks post-procedure
			• Additional data collected: Morning serum cortisol, change in intraocular pressure, plasma pharmacokinetics, quality of life by SNOT-22 (secondary endpoint), endoscopy and MRI
				• Primary safety endpoint achieved / 2,500 mg was well tolerated during entire duration of treatment
				• Significant and rapid, clinically meaningful and durable improvement in SNOT-22 scores was observed from week 1 through week 25
				  • Average change in baseline SNOT-22 score at week 1 was -13.0 points (P= 0.008 to pre-treatment)
				  • Symptom relief, as measured by SNOT-22 score, was observed through the entire duration of study, achieving an average change from baseline of -20.5 points at week 24 (P=0.00005 to pre-treatment), which was the end of the treatment period, and -20.0 ($p < 0.0001$) at week 25, which was the end of the study

Phase 2 (LANTERN)	Initiated May 2019	• Randomized, blinded, sham-controlled, dose-ranging, parallel-group clinical trial • 24 week treatment period, plus 24 week safety follow up post-removal • Bilateral 2,500 mg or 7,500 mg dose • 99 evaluable patients with the option to increase to up to 150 patients. Enrollment discontinued at 67 patients due to COVID-19 pandemic • Up to 50 study sites globally	• Primary endpoint: Change in composite score of 7-day average of 4 cardinal symptoms from baseline at week 4 • Secondary objectives: Symptom improvement at week 24, sinus imaging to assess reduction in inflammation, SNOT-22, time to treatment failure, reduction in inflammation, frequency of exacerbations, pharmacokinetics/pharmacodynamics	• Enrollment discontinued at 67 patients due to COVID-19 pandemic; subject to impact of COVID-19 on our business, expect to complete data base lock and report topline data by the end of 2020

Phase 2

Our Phase 2 LANTERN clinical trial for LYR-210 was initiated in May 2019. The clinical trial is designed as a multi-center, randomized, sham procedure-controlled, patient blinded trial. The study was designed to enroll 99 evaluable patients with the option to expand to up to 150 patients at up to 30 sites in the United

States, Australia, Austria, Czech Republic, New Zealand and Poland. Due to the COVID-19 pandemic, we discontinued enrollment at 67 patients and do not plan to open any sites in the United States. We plan to leverage remote data collection to enable the completion of clinical assessments and to generate sufficient data to design our Phase 3 clinical trial. As of April 2020, there were no reported serious adverse events. The goal of the trial is to evaluate the efficacy of LYR-210 in treating adult surgically-naïve CRS patients who have failed medical management. Subject to the impact of COVID-19 on our business, we expect to report topline data by the end of 2020.

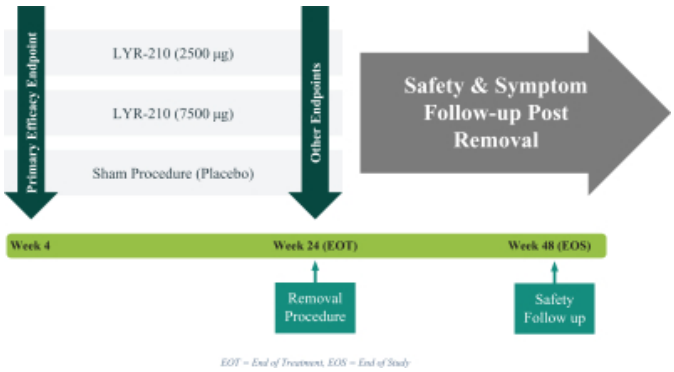


Figure 5. Design of Phase 2 LANTERN Clinical Trial for LYR-210.

The trial consists of three arms with a 1:1:1 randomization: (1) an experimental arm with bilateral placement of 2,500 µg of LYR-210; (2) an experimental arm with bilateral placement of 7,500 µg of LYR-210; and (3) a control arm with a bilateral sham procedure only (see Figure 5, above). In addition, subjects will be supplied with saline for nasal irrigation treatment during the course of the treatment period.

The primary endpoint of the trial is a change from baseline in the 7-day average scores of the 4-Cardinal Symptoms Score, or 4CSS, at week 4. The FDA prefers a composite score of the cardinal symptoms of CRS for patients with CRS, and we will utilize the 4CSS for the trial. The 4CSS is comprised of four domains that are scored 0-3 with a total score of 12. The four domains are: (1) obstruction and congestion; (2) facial pain and pressure; (3) nasal discharge; and (4) olfactory loss (loss of sense of smell).

The key secondary endpoints for the trial are the change from baseline in 7-day average 4CSS at week 24, time to treatment failure, and change from baseline in Zinreich score (a measure of inflammation) for the posterior ethmoid, frontal or spheoid sinuses at week 24.

Phase 1

Our Phase 1 clinical trial for LYR-210 was a prospective, multi-center, non-randomized, single-arm, open-label clinical trial with adult surgically-naïve CRS patients who have failed medical management. The objective of the trial was to evaluate safety and feasibility over 24 weeks of continuous anti-inflammatory treatment with a single administration of LYR-210 with an additional measurement taken one week post-removal. The trial was conducted across five sites in New Zealand and Australia. Forty LYR-210 matrices were placed bilaterally in 20 patients with and without nasal polyps. Each matrix contained 2,500 µg of MF. LYR-210 met its primary safety endpoint, and significant and rapid, clinically meaningful and durable improvement on a patient symptom severity scale was observed through 25 weeks.

Study Design	Prospective, multi-center, non-randomized, single-arm, open-label clinical trial
Study Objectives	Safety and feasibility over 24 weeks of continuous anti-inflammatory treatment with a single administration of LYR-210 with an additional measurement taken one week post-removal
Patient Population	Adult CRS patients who have failed medical management and have not had surgery
Number of Subjects	20 patients with CRS (40 LYR-210 matrices placed)
Number of Sites	5 study sites (New Zealand and Australia)
Dose	2,500 mcg bilaterally
Primary Endpoint	Product-related serious adverse events from baseline to week 4
Additional Data Collected	• Morning serum cortisol • Intraocular pressure • Plasma pharmacokinetics • Quality of life by SNOT-22 • Endoscopy and MRI

Figure 6. Description of Phase 1 Clinical Trial for LYR-210.

Twenty patients were enrolled, 12 of whom exhibited no bilateral nasal polyps and eight of whom exhibited bilateral nasal polyps. All 20 patients received bilateral administration of LYR-210 at 2,500 µg in an office setting. The study population was predominantly male with a mean age of 39.9 (range: 24-67) years old. All patients reported moderate-to-severe CRS symptoms with a mean SNOT-22 score of 50.9, of which nine patients reported severe symptoms (SNOT-22 score > 50). All patients complained of nasal obstruction.

The Phase 1 trial achieved its primary safety endpoint at week 4. LYR-210 at 2,500 µg was well tolerated by patients during the entire duration of treatment and also gave insight into the successful office-based placement of the matrix and clinical outcomes in non-polyp and polyp patients. There were no reports of unexpected adverse events, or AEs, or local nasal AEs, including epistaxis, nasal burning, nasal dryness, nasal irritation and nasal septal perforation during the 24-week MF local dosing treatment duration. Additionally, no change in morning serum cortisol levels or intraocular pressures were noted.

Event[1] Systemic Organ Class	Number of Patients with Event over full 25-week period[2]
All Adverse Events	**16**
Common AE (> 1 Patient)	
General disorders and administration site conditions	
Facial pain	2
Infections and infestations	
Nasopharyngitis	7
Sinusitis	4
Upper respiratory tract infection	5
Injury, poisoning and procedural complications	
Procedural headache	2
Respiratory, thoracic and mediastinal disorders	
Nasal discomfort	2
Nasal odor	4
All Serious Adverse Events	
Cardiac disorders	
Acute Myocardial Infarction	1

(1) AEs coded using the MedDRA dictionary, version 21.0.

(2) N=20 total patients. Patients experiencing the same AEs are counted only once. An additional 5 AEs occurred during the screening period, prior to treatment and are not included in this table. 25-week period includes one week post-removal.

Figure 7. Adverse Event Profile for Phase 1 Clinical Trial for LYR-210.

The most common reported AEs were nasopharyngitis, upper respiratory tract infection, sinusitis, nasal odor, procedural headache, nasal discomfort, and facial pain. There was one serious adverse event, an acute myocardial infarction, which was deemed to be unrelated to LYR-210. LYR-210 was removed due to AEs before the end of the 24-week treatment period from two patients who dropped out of the trial prior to completion. One patient requested removal after 20 weeks of treatment due to complaints of memory loss, which was deemed to be unrelated to LYR-210. The other patient requested removal after 17 weeks of treatment due to a recurrence of a sinus infection that was non-serious and moderate in severity and the patient reported relief of AE symptoms within four days following removal and medical treatment.

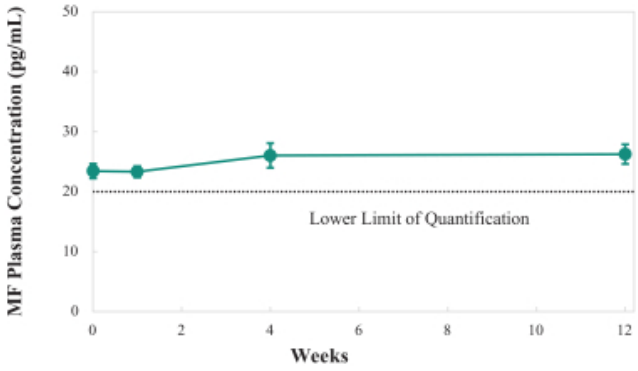
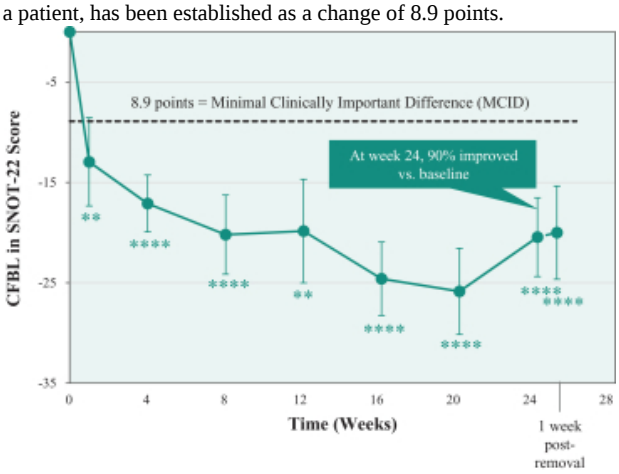


Figure 8. Plasma Drug Concentration for the 50% of Patients with Levels Above LLQ. Note: at day 1, week 1, week 4 and week 12, there were 11, 10, 16 and 10 patients, respectively, whose plasma drug concentration was below the lower limit of quantification, or LLQ.

The trial results indicated low levels of systemically circulated steroid from LYR-210. MF plasma concentrations were unquantifiable in about 50% of patients and near the lower limit of quantification of 20 pg/ML in the other 50% of patients (see Figure 8, above). There were no AEs associated with systemic levels of MF.

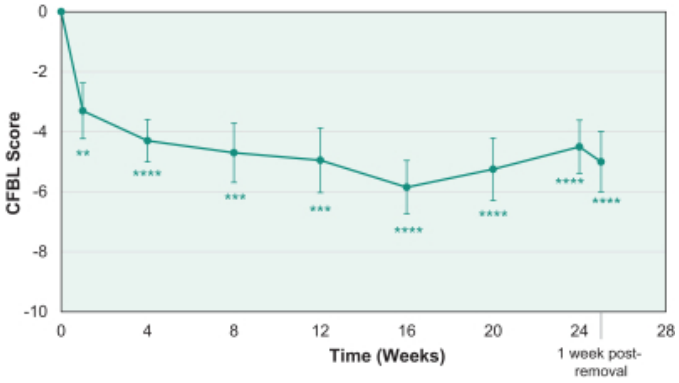
All of the matrices were successfully bilaterally placed in the sinonasal passages, in both non-polyp and polyp patients. In 7 out of the 40 matrices placed, the investigator felt that the initial placement was not ideal, and therefore the matrix was removed and a new matrix was placed. Patients did not report feeling the matrices post-administration. Further, LYR-210 had high levels of intranasal retention out to 24 weeks, with a retention rate of more than 80%. There were no AEs associated with the matrices that were dislodged.

The Sino-Nasal Outcome Test, or SNOT-22, is a disease-specific questionnaire for sinus disease. A validated patient-reported outcome measure, the SNOT-22 is used widely by ENTs to assess disease status and treatment outcomes in CRS patients with and without polyps. It is comprised of 20 questions which address CRS-related symptoms and quality of life that can be grouped into 5 domains including rhinologic, extranasal rhinologic, ear/facial, psychological and sleep. Each question is scored on a scale from 0 to 5 for a total score ranging from 0 to 110 points. Mild disease is defined on the SNOT-22 as a score of 8 to 20, moderate as a score of 21 to 50 and severe as greater than 50. If a patient has a SNOT-22 score of 7 or lower they are considered “normal” or absent of sino-nasal disease. The SNOT-22 minimal clinically important difference, or MCID, which is the smallest change in SNOT-22 score that can be detected by a patient, has been established as a change of 8.9 points.



** P<0.05, **P<0.01, *** P<0.001, **** P<0.0001 to baseline by paired two tailed t-test*

Figure 9. Total Symptom Improvement by SNOT-22 Score in Phase 1 Clinical Trial for LYR-210.



*** P<0.01, ***P<0.001, **** P<0.0001 to baseline by paired two tailed t-test*

Figure 10. Symptom Improvement by Retrospective Analysis of the Scores Corresponding to the Composite 4CSS Extracted from the Corresponding Individual SNOT-22 Scores. This composite score produced as a result of the retrospective analysis was not an endpoint of our Phase 1 clinical trial or addressed in our statistical analysis plan and was done for illustrative purposes only.

Patients generally experienced significant and rapid, clinically meaningful and durable improvements in CRS symptoms in the Phase 1 trial, as measured by SNOT-22 score (see Figure 9, above). Significant reduction in SNOT-22 scores was observed at week 1 and this reduction persisted through week 25, at the end of the trial

(see Figure 9, above). Changes from baseline, or CFBL, in SNOT-22 score were statistically significant (P < 0.01) at all measured intervals. The average change from baseline in SNOT-22 score at week 1 was -13.0 points (P= 0.008 to pre-treatment), achieving the MCID of -8.9 points. Further, symptom relief was observed through the entire duration of study, and achieved -20.5 points at week 24 (P=0.00005 to pre-treatment), at the time LYR-210 was removed. Significant symptom improvement was achieved in all of the SNOT-22 subdomains at week 24. We also conducted a retrospective analysis of symptom improvement, as measured by CFBL, in the individual domain scores extracted from individual SNOT-22 scores that correspond to the cardinal symptoms comprising the 4CSS in order to retrospectively assess the improvement of these cardinal symptoms in these patients (see Figure 10, above). This retrospective analysis showed that the CFBL in the individual domain scores were generally consistent with the CFBL in the SNOT-22 scores. This composite score produced as a result of the retrospective analysis was not an endpoint of our Phase 1 clinical trial or addressed in our statistical analysis plan and was done for illustrative purposes only. Our Phase 2 LANTERN clinical trial uses a composite score of 4CSS as its primary endpoint at week 4. However, there are differences related to how the endpoint will be calculated compared to the retrospective analysis of the Phase 1 clinical trial data. For example, the wording of the questions in the SNOT-22 questionnaire relating to the four cardinal symptom domains is similar, but not identical, to the wording in the 4CSS questionnaire used in our Phase 2 LANTERN clinical trial. In addition, the SNOT-22 questions use a scale of 0 to 5 while the 4CSS questions in our Phase 2 LANTERN clinical trial use a scale of 0 to 3. Finally, the individual SNOT-22 domain scores used in the retrospective analysis were measured every two weeks and were not averaged, while the primary endpoint in our Phase 2 LANTERN clinical trial is the CFBL of the 7-day average scores of 4CSS at week 4.

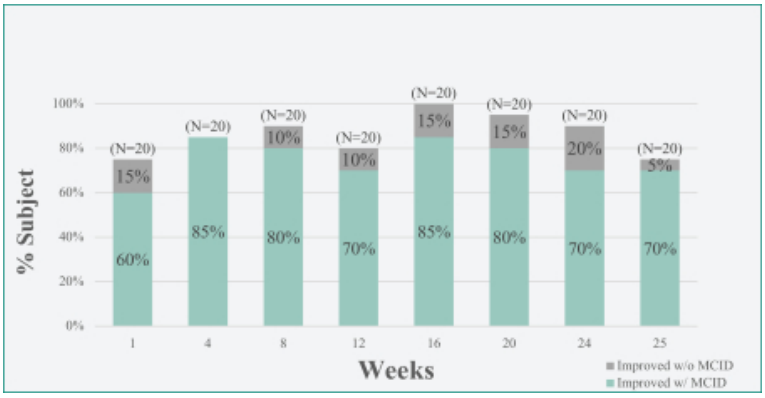
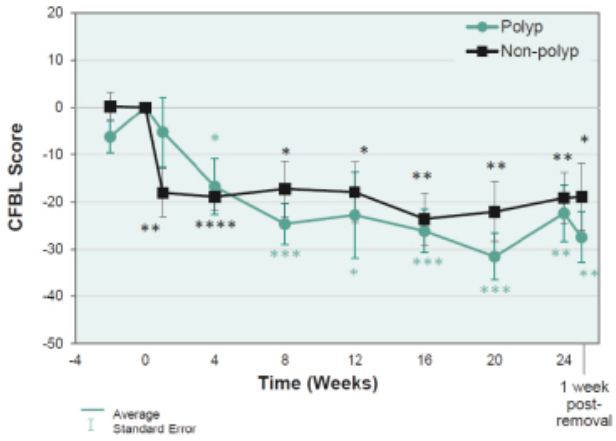


Figure 11. Percent of Patients with Symptom Improvement by SNOT-22 Score, Showing Improvement with MCID and without MCID, in Phase 1 Clinical Trial for LYR-210.

At week 24, 90% of patients improved versus the baseline score, with clinically meaningful improvement observed in 70% of patients (see Figure 11, above).



** P<0.05, **P<0.01, ***P<0.001, **** P<0.0001 to baseline by paired two tailed t-test*

Figure 12. Symptom Improvement in Polyp and Non-Polyp Patients by Change from Baseline in SNOT-22 Score in Phase 1 Clinical Trial for LYR-210.

Similar efficacy was observed in both polyp and non-polyp patients (see Figure 12, above). Further, even though each of the clinical trial patients were surgery candidates at the trial entry and no topical intranasal spray was utilized in conjunction with LYR-210 during the 25-week trial, none of the patients underwent sinus surgery during the treatment period.

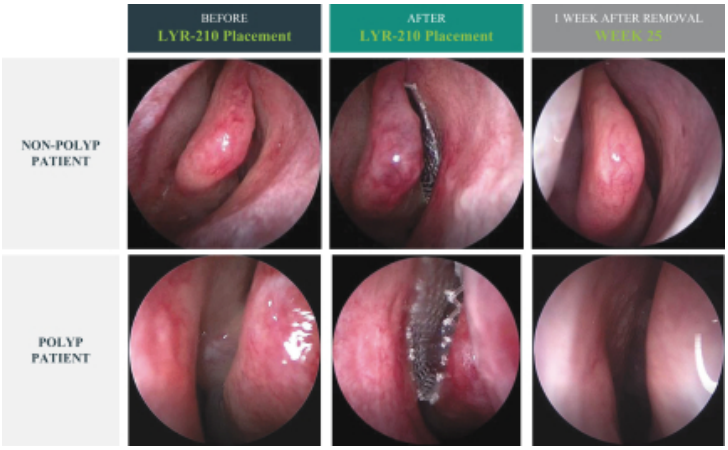


Figure 13. Endoscopy Images Before and After Treatment with LYR-210 in Phase 1 Clinical Trial. For illustrative purposes only.

Figure 13, above, shows via nasal endoscopy images from our Phase 1 clinical trial the impact of LYR-210 observed in a patient without nasal polyps and a patient with nasal polyps at three time points: before LYR-210 placement, after LYR-210 placement and at week 25, one week after LYR-210 was removed. The

middle image for each patient shows the deployment of LYR-210 in the middle meatus of a non-polyp and a polyp patient, and how LYR-210 conformed to the walls of the obstructed nasal anatomy to maximize tissue contact. In the third image for each patient, the erythema and inflammation present before treatment was observed to be resolved and less evident after 24 weeks of treatment and one week post-removal.

LYR-220 for the Treatment of CRS

LYR-220 is a new investigative therapy for CRS patients with and without nasal polyps that have failed medical management and have had a prior endoscopic sinus surgery. In the treatment paradigm, LYR-220, if approved, is positioned for use for patients post-surgical intervention who continue to have recurrent CRS symptoms or relapse, as a potential preferred alternative to revision surgery. LYR-220 utilizes the same API as LYR-210, but with a larger matrix to treat larger nasal cavities consistent with those in post-surgical CRS patients. We estimate that 40% of patients that present to an ENT physician with CRS have had a prior surgery. These patients represent the addressable market for LYR-220.

No product is currently approved by the FDA to treat post-surgery CRS patients that do not have polyps, representing the vast majority of such CRS patients, and only a three-month steroid-eluting sinus implant and a mAb have been approved by the FDA for the treatment of post-surgery CRS patients that have polyps. We believe LYR-220 is meaningfully differentiated from currently approved products because, if successfully developed and approved, it would be the only product able to deliver up to six months of topical treatment in a single administration to treat both polyp and non-polyp post-surgery CRS patients who fail medical management. Further, with respect to the mAb, LYR-220 is differentiated because it would provide localized delivery so as to avoid systemic side effects with the added benefit of being a significantly more economical treatment alternative.

Subject to the impact of COVID-19 on our business, we expect to initiate a proof-of-concept clinical trial for LYR-220 by the end of 2021 and, if LYR-210 is approved by the FDA, to submit an sNDA for a potentially faster path to approval for LYR-220. We believe the clinical development of LYR-220 may require only a single Phase 3 study for registration.

Future Product Candidates

Our XTreo platform provides a versatile drug development engine that enables us to focus on other indications where long-term delivery of existing treatments may provide improved local bioavailability and enhanced efficacy or safety. Other conditions we may pursue with nasal delivery include allergic rhinitis, rare disorders where nasal disease contributes to the disease pathology and central nervous system disorders. Additionally, we believe our platform can be adapted to locally address conditions of the ear.

Post-Approval Commercialization Strategy

If LYR-210 and LYR-220 are successfully developed and approved, we intend to engage in targeted outreach to our key physician, payer and patient audiences. ENT physicians are the primary treaters of CRS patients who have failed medical management and thus represent our target physician base. Given the requirement for endoscopic placement of our products, we plan to build an in-house sales force, consisting of approximately 75-100 employees, that will target ENT physicians whose sub-specialty is general otolaryngology or rhinology, which together represent approximately 60% of the approximately 12,000 ENT physicians in the United States. Given that LYR-210 and LYR-220 can be administered in a brief, simple procedure requiring no additional equipment, we anticipate that our sales representatives' time will primarily be directed at educating the ENT physicians around product attributes and patient selection. We plan to supplement our direct physician outreach with appropriate medical education and marketing efforts to further penetrate our physician base and drive adoption of our products.

Ensuring physician and patient market access to our products will be critical to our success, and we plan to execute a holistic reimbursement strategy, consisting of a reimbursement support hub and approximately

15-20 field-based reimbursement experts, that will integrate payer coverage and physician practice management initiatives. We believe that the primary decision makers from a payer perspective are private payers, which represent approximately 80% of the payer mix for our products. We intend to deploy a market access team to educate payers on the clinical and pharmacoeconomic attributes of our products and to seek to secure favorable coverage policies and to maximize the covered lives that have reimbursement for our products. The team will also secure the necessary codes to facilitate physician and patient payment including a J-code, which is required for physician-administered products. In addition, we expect to be able to use existing current procedural terminology codes for procedures involving the placement and removal of our product candidates, if approved. To maximize access to LYR-210 and LYR-220, we plan to develop a reimbursement support model which aims to reduce physician financial risk associated with physician-administered products.

Subsequent to our initial ENT physician and payer efforts, we also plan to selectively use cost-effective, patient-directed marketing strategies to further increase awareness among the CRS patient community of our products with the goal of increasing ENT physician visits.

In addition, we may also consider entering into collaborative relationships with established entities outside the U.S. for a potentially faster path to bringing our products to market. We may also enter into collaborative relationships within the U.S. for future pipeline product candidates.

Competition

Our industry is highly competitive and subject to rapid and significant technological change as research provides a deeper understanding of the pathology of diseases and new technologies and treatments are developed. We believe our scientific knowledge, technology, and development capabilities provide us with substantial competitive advantages, but we face potential competition from multiple sources, including large pharmaceutical, biotechnology, specialty pharmaceutical and, to a lesser degree, medical device companies.

Our competitors may have significantly greater financial resources, robust drug pipelines, established presence in the market and expertise in research and development, manufacturing, pre-clinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products than we do. These competitors also compete with us in recruiting and retaining qualified clinical, regulatory, scientific, sales, marketing and management personnel, in establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

LYR-210 and LYR-220 are positioned following the failure of medical management and therefore are not anticipated to compete directly with branded, generic or over-the-counter, inhaled corticosteroids. LYR-210 is positioned for use in surgically-naïve CRS patients where the primary competitive treatment is surgical procedures, including FESS with and without BSD and BSD as a standalone procedure. In this space, LYR-210 would be the only product we are aware of that may deliver six months of local treatment with a single administration for both patients with and without polyps as a preferred alternative to surgical interventions. LYR-220 is positioned for use in patients that have had a prior FESS. Currently there are no competitive treatments for post-surgical patients without polyps. For patients with polyps, LYR-220 would compete against steroid-releasing sinus implants and mAbs. We believe LYR-220 has competitive advantages over these interventions, including a longer elution profile than the existing sinus implant and no systemic exposure relative to the mAb. Key competitive factors affecting the commercial success of both LYR-210 and LYR-220 and any other product candidates we may develop are likely to be efficacy, safety and tolerability profile, reliability, convenience of administration, price and reimbursement.

Several companies are also currently developing treatments for CRS patients with nasal polyps, including Hoffmann-La Roche, GlaxoSmithKline, Gossamer Bio, AnaptysBio, Regeneron, OptiNose and

Intersect ENT. If these treatments are approved by the FDA, they could represent competition across the spectrum of CRS patients.

Manufacturing and Supply

We currently manufacture our drug delivery products at our facility in Watertown, Massachusetts with components supplied by external suppliers. We perform inspections of these components before use in our manufacturing operations. Using these components, we manufacture, assemble, inspect, and package our implants, and send them to a third-party sterilization vendor. After sterilization, we inspect the product and test via third-party laboratories to determine compliance with our specifications. Upon release of the lot to inventory, the product is labeled and distributed via a third-party vendor to clinical sites.

The API and a number of the components used in our implants are currently supplied to us from single source suppliers. We source our supplies from manufacturers with a track record of Good Manufacturing Procedures (GMP). We rely on single source suppliers for some of our polymer materials, some extrusions and molded components, and for finished goods testing, labeling and distribution. Our ability to supply our products and to develop our product candidates depends, in part, on our ability to obtain successfully the API and polymer materials used in these products in accordance with regulatory requirements and in sufficient quantities. We plan to enter into manufacturing, supply and quality agreements with our single source suppliers. We generally acquire our single source components pursuant to purchase orders placed in the ordinary course of business. We currently maintain sufficient supplies of the API and components from our single source suppliers to support our ongoing Phase 2 LANTERN clinical trial and ongoing development activities. In the future, we intend to maintain sufficient supplies such that our ability to supply the clinic or commercial market will not be compromised and so as to allow for sufficient time necessary to obtain another source of API or components.

We are currently improving our manufacturing capabilities and increasing capacity to better support further clinical studies and commercialization. We plan to use an outsourcing model and choose a contract manufacturer with the appropriate infrastructure, technical experience, quality systems and a track record of FDA compliance. We plan to continue to use an outsourcing model for our operations until we reach a sufficient scale to justify investment in internal manufacturing capacity.

Intellectual Property

We actively seek to protect the intellectual property and proprietary technology platform that we believe is important to our business, which includes seeking and maintaining patents covering our technology platform and products, and any other inventions that are commercially or strategically important to the development of our business. We also rely upon trademarks to build and maintain the integrity of our brand, and we seek to protect the confidentiality of trade secrets that may be important to the development of our business. For more information, please see “Risk Factors—Risks Related to Our Intellectual Property”.

Patents and Patent Applications

As of March 31, 2020, we own 20 issued U.S. patents, nine foreign issued patents, five U.S. pending applications, and 21 foreign pending applications, out of which 13 issued U.S. patents, nine foreign issued patents, five U.S. pending applications, and 21 foreign pending applications are directed to our XTreo platform, LYR-210, and LYR-220.

All technology material to our business has been developed in-house and is protected with patents and patent applications in two major lineages, along with the beginning of a third, more recent lineage of patent applications. The first lineage dates from 2009 and provides protection potentially until 2030, exclusive of possible patent term adjustments or extensions or other forms of exclusivity. This first lineage includes issued patents in the U.S., Europe, Japan, Canada and Great Britain, that are not limited to any particular drug, site of

delivery or patient condition, but specify features of the implant, system, method and polymers. The second lineage dates from 2015 and provides protection potentially until 2036, exclusive of possible patent term adjustments or extensions or other forms of exclusivity. This second lineage includes issued U.S. patents with ENT-specific method claims directed to the specific drug, site of delivery (i.e. middle meatus) and patient condition, along with numerous pending applications in the U.S., Europe, Japan, Canada, China and the Great Britain. The third, more recent lineage dates from 2017 with the prospect of patent protection potentially until 2037, exclusive of possible patent term adjustments or extensions or other forms of exclusivity. This third lineage attempts to capture the drug release features and patient results from the recent clinical trial. It includes pending applications in the U.S. and Great Britain, along with a patent application filed under the Patent Cooperation Treaty that entered the National Phase in October of 2019 in the following countries: the U.S., Canada, Australia, Europe, Korea, Singapore, China and Japan.

Trademarks and Trade Secrets

As of March 31, 2020, our trademark portfolio contained one U.S. trademark registration and eight foreign trademark registrations.

We also rely upon trade secrets, know-how and continuing technologies innovation, and may pursue licensing opportunities in the future, to develop and maintain our competitive position. We seek to protect our proprietary rights through a variety of methods, including confidentiality agreements, invention assignment agreements, non-solicitation and non-compete agreements with suppliers, employees, consultants and others who may have access to proprietary information.

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, manufacturing, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, import, and export of pharmaceutical products such as those we are developing. We will be required to navigate the various preclinical, clinical and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek approval of our product candidates. The processes for obtaining regulatory approvals in the United States and other countries, as appropriate, along with subsequent compliance with appropriate federal, state, local and foreign statutes and regulations, require the expenditure of substantial time and resources.

U.S. Government Regulation

In the United States, we are subject to extensive regulation by the FDA, which regulates drugs under the Federal Food, Drug, and Cosmetic Act, or the FDCA, and its implementing regulations, and other federal, state, and local regulatory authorities. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. 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 a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending NDAs, withdrawal of an approval, imposition of a clinical hold, issuance of warning or untitled 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 in compliance with the FDA's Good Laboratory Practice regulations;

- submission to the FDA of an IND which must become effective before human clinical trials 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 trials in accordance with good clinical practice (GCP) requirements to establish the safety and efficacy of the proposed drug product for each indication;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practice, or cGMP, requirements and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity;
- satisfactory completion of an FDA inspection of selected clinical sites to assure compliance with GCPs and the integrity of the clinical data;
- payment of user fees; and
- FDA review and approval of the NDA.

We are developing our product candidates using an innovative drug delivery platform comprised of a mesh scaffold, an elastomeric matrix and a polymer-drug complex delivered through a narrow applicator. In the United States, products composed of components that would normally be regulated by different centers at the FDA are known as combination products. Typically, the FDA's Office of Combination Products assigns a combination product to a specific Agency Center as the lead reviewer. The FDA determines which Center will lead a product's review based upon the product's primary mode of action. Depending on the type of combination product, its approval, clearance or licensure may usually be obtained through the submission of a single marketing application. We anticipate that LYR-210 and LYR-220 will be regulated as drugs, and for each product candidate, the FDA will permit a single regulatory submission seeking approval. However, the FDA sometimes will require separate marketing applications for individual constituent parts of the combination product which may require additional time, effort, and information. Even when a single marketing application is required for a combination product, such as an NDA for a combination pharmaceutical and device product, both the FDA's Center for Drug Evaluation and Research and the FDA's Center for Devices and Radiological Health may participate in the review. An applicant will also need to discuss with the Agency how to apply certain premarket requirements and post-marketing regulatory requirements, including conduct of clinical trials, adverse event reporting and good manufacturing practices, to their combination product.

Preclinical Studies

Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. An IND automatically becomes effective and a clinical trial proposed in the IND may begin 30 days after the FDA receives the IND, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical Trials

Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. An IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must continue to oversee the clinical trial while it is being conducted. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their www.clinicaltrials.gov website.

Human clinical trials are typically conducted in three or four sequential phases, which may overlap or be combined:

- Phase 1: The drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.

- Phase 2: The drug is administered to 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.

- Phase 3: The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product.

- Phase 4: In some cases, the FDA may conditionally approve an NDA for a product candidate on the sponsor's agreement to conduct additional clinical trials after NDA approval. In other cases, a sponsor may voluntarily conduct additional clinical trials post approval to gain more information about the drug. Such post approval trials are typically referred to as Phase 4 clinical trials.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA, and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial 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 trials, 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.

Marketing Approval

Assuming successful completion of the required clinical testing, the results of the preclinical and clinical studies, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Under the Prescription Drug User Fee Act (PDUFA) guidelines that are currently in effect, the FDA has a goal of 10 months to review and act on a standard NDA and 6 months to review and act on a priority NDA, measured from the "filing" date for an NDA for a new molecular entity (NME) or from the receipt date for an NDA for a non-NME product. Measuring from the "filing" date typically adds approximately two months to the timeline for review and decision, because the FDA has sixty days from receipt to make a "filing" decision, as described below.

In addition, under the Pediatric Research Equity Act of 2003 as amended and reauthorized, certain NDAs or supplements to an NDA 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. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements.

The FDA also may require submission of a risk evaluation and mitigation strategy, or REMS, plan to ensure that the benefits of the drug outweigh its risks. The REMS plan could include medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries, or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also 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 the drug is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity.

The FDA may refer an application for a novel drug to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical trial sites to assure compliance with GCP requirements.

The FDA generally accepts data from foreign clinical trials in support of an NDA if the trials were conducted under an IND. If a foreign clinical trial is not conducted under an IND, the FDA nevertheless may accept the data in support of an NDA if the study was conducted in accordance with GCP requirements and the FDA is able to validate the data through an on-site inspection, if deemed necessary. Although the FDA generally requests that marketing applications be supported by some data from domestic clinical studies, the FDA may accept foreign data as the sole basis for marketing approval if (1) the foreign data are applicable to the U.S.

population and U.S. medical practice, (2) the studies were performed by clinical investigators with recognized competence, and (3) the data may be considered valid without the need for an on-site inspection or, if the FDA considers the inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means.

The testing and approval process for an NDA requires substantial time, effort and financial resources, and each may take several years to complete. Data obtained from preclinical and clinical testing are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met to secure final approval of the NDA and may require additional clinical testing, preclinical testing, manufacturing or formulation modifications or other changes in order for the FDA to reconsider the application. Even with submission of this 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.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. 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.

The Hatch-Waxman Amendments

Our current regulatory strategy is to pursue development of LYR-210 as a Section 505(b)(2) NDA. As an alternative path to FDA approval for modifications to formulations or uses of drugs previously approved by the FDA, an applicant may submit an NDA under Section 505(b)(2) of the FDCA. Section 505(b)(2) was enacted as part of the Hatch-Waxman Amendments. A Section 505(b)(2) NDA is an application that contains full reports of investigations of safety and effectiveness, but 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 or use from the person by or for whom the investigations were conducted. This type of application permits reliance for such approvals on literature or on an FDA finding of safety, effectiveness or both for an approved drug product. As such, under Section 505(b)(2), the FDA may rely, for approval of an NDA, on data not developed by the applicant. Therefore, if we can satisfy the conditions required for a Section 505(b)(2) NDA submission, it may eliminate the need for us to conduct some of the preclinical studies or clinical trials for the new product candidate that might otherwise have been required, although the review time is not shortened. The FDA may then approve the new product candidate for the new indication sought by the 505(b)(2) applicant.

Orange Book Listing

In seeking approval for a drug through an NDA, applicants are required to list with the FDA certain patents 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 FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, known as the Orange Book. Any applicant who files an Abbreviated New Drug Application (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 certify, for each patent listed in the Orange Book for the referenced drug, to the FDA that (1) no patent information on the drug product that is the subject of the application has been submitted to the FDA, (2) such patent has expired, (3) the date on which such patent expires 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. The fourth certification described above 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 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. This section viii statement does not require notice to the patent holder or NDA owner. There might also be no relevant patent certification.

If the reference NDA holder and 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. Even if the 45 days expire, a patent infringement lawsuit can be brought and could delay market entry, but it would not extend the FDA-related 30-month stay of approval.

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. Specifically, the holder of the NDA for the listed drug may be entitled to a period of non-patent exclusivity, during which the FDA cannot approve an ANDA or 505(b)(2) application that relies on the listed drug. For example, a pharmaceutical manufacturer may obtain five years of non-patent exclusivity upon NDA approval of an NCE, which is a drug that contains an active moiety that has not been approved by FDA in any other NDA. An "active moiety" is defined as the molecule or ion responsible for the drug substance's physiological or pharmacologic action. During the five-year exclusivity period, the FDA cannot accept for filing any ANDA seeking approval of a generic version of that drug or any 505(b)(2) NDA for the same active moiety and that relies on the FDA's findings regarding that drug, except that FDA may accept an application for filing after four years if the follow-on applicant makes a paragraph IV certification. This exclusivity period may be extended by an additional six months if certain requirements are met to qualify the product for pediatric exclusivity, including the receipt of a written request from the FDA that the NDA holder conduct certain pediatric studies, the submission of study reports from such studies to the FDA after receipt of the written request and satisfaction of the conditions specified in the written request.

Expedited Review and Approval Programs

The FDA has various programs, including Fast Track Designation, accelerated approval, priority review, and breakthrough therapy designation, which are intended to expedite or simplify the process for the development and FDA review of drugs that are intended for the treatment of serious or life threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs to patients earlier than under standard FDA review procedures.

To be eligible for a Fast Track Designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none exists or provide a therapy that may be potentially superior to existing therapy based on efficacy or safety factors. The FDA may review sections of the NDA for a fast track product on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission

of the sections of the NDA, the FDA agrees to accept sections of the NDA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA.

The FDA may give a priority review designation to drugs that offer major advances in treatment, or provide a treatment where no adequate therapy exists. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current PDUFA guidelines. Under the new PDUFA agreement, these six and ten month review periods are measured from the "filing" date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Most products that are eligible for Fast Track Designation are also likely to be considered appropriate to receive a priority review.

In addition, products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may be eligible for accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform post-marketing studies to verify and describe the predicted effect on irreversible morbidity or mortality or other clinical endpoint, and the drug may be subject to accelerated withdrawal procedures.

Moreover, under the provisions of the Food and Drug Administration Safety and Innovation Act, a sponsor can request designation of a product candidate as a "breakthrough therapy." A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs designated as breakthrough therapies are also eligible for accelerated approval. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. We may explore some of these opportunities for our product candidates as appropriate.

Post Approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA and other government authorities, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications, manufacturing changes or other labeling claims, are subject to prior FDA review and approval. There also are continuing annual program fee requirements for any marketed products.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. 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.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state authorities, and are subject to

periodic unannounced inspections by the FDA and these state authorities for compliance with cGMP requirements. 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 requirements 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.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards 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, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory 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;
- fines, 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, although physicians, in the practice of medicine, may prescribe approved drugs for unapproved indications. The FDA and other authorities 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 pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and sets minimum standards for the registration and regulation of drug 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.

Other Healthcare Laws

Pharmaceutical and medical device manufacturers are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business. Such laws include, without limitation, U.S. federal anti-kickback, fraud and abuse, false claims, consumer fraud, pricing reporting, data privacy and security, and transparency laws and regulations as well as similar foreign laws in the jurisdictions outside the U.S. Similar state and local laws and regulations may also restrict business practices in the pharmaceutical industry, such as state anti-kickback and false claims laws, which may apply to business practices, including but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party

payors, including private insurers, or by patients themselves; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information or which require tracking gifts and other remuneration and items of value provided to physicians, other healthcare providers and entities; state and local laws that require the registration of pharmaceutical sales representatives; and state and local laws governing the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. Violation of any of such laws or any other governmental regulations that apply may result in penalties, including, without limitation, civil and criminal penalties, damages, fines, additional reporting obligation, the curtailment or restructuring of operations, exclusion from participation in governmental healthcare programs and individual imprisonment.

Coverage and Reimbursement

Sales of any pharmaceutical product depend, in part, on the extent to which such product will be covered by third-party payors, such as federal, state and foreign government healthcare programs, commercial insurance and managed healthcare organizations, and the level of reimbursement for such product by third-party payors. Significant uncertainty exists as to the coverage and reimbursement status of any newly approved product. Decisions regarding the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. One third-party payor's decision to cover a particular product does not ensure that other payors will also provide coverage for the product. As a result, the coverage determination process can require manufactures to provide scientific and clinical support for the use of a product to each payor separately and can be a time-consuming process, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. For products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. Additionally, separate reimbursement for the product itself or the treatment or procedure in which the product is used may not be available, which may impact physician utilization.

In addition, third-party payors are increasingly reducing reimbursements for pharmaceutical products and services. The U.S. government and state legislatures have continued implementing cost-containment programs, including price controls, restrictions on coverage and reimbursement and requirements for substitution of generic products. Third-party payors are more and more challenging the prices charged, examining the medical necessity and reviewing the cost effectiveness of pharmaceutical products, in addition to questioning their safety and efficacy. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit sales of any product. Decreases in third-party reimbursement for any product or a decision by a third-party payor not to cover a product could reduce physician usage and patient demand for the product.

In international markets, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. Pharmaceutical products may face competition from lower-priced products in foreign countries that have placed price controls on pharmaceutical products and may also compete with imported foreign products. Furthermore, there is no assurance that a product will be considered medically reasonable and necessary for a specific indication, will be considered cost-effective by third-party payors, that an adequate level of reimbursement will be established even if coverage is available or that the third-party payors' reimbursement policies will not adversely affect the ability for manufacturers to sell products profitably.

Healthcare Reform

In the United States and certain foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system. In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the ACA, was signed into law, which substantially changed the way healthcare is financed by both governmental and private insurers in the United States. By way of example, the ACA increased the minimum level of Medicaid rebates payable by manufacturers of brand name drugs from 15.1% to 23.1%; required collection of rebates for drugs paid by Medicaid managed care organizations; imposed a non-deductible annual fee on pharmaceutical manufacturers or importers who sell certain "branded prescription drugs" to specified federal government programs, implemented a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted, or injected; expanded eligibility criteria for Medicaid programs; creates a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and established a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, in 2017, Congress enacted the Tax Cuts and Jobs Act, which eliminated 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." On December 14, 2018, a U.S. District Court Judge in the Northern District of Texas, or the Texas District Court Judge, ruled that the individual mandate is a critical and inseverable feature of the ACA, and therefore, because it was repealed as part of the Tax Cuts and Jobs Act, the remaining provisions of the ACA are invalid as well. While the Texas U.S. District Court Judge, as well as the Trump administration and CMS, have stated that the ruling will have no immediate effect, and on December 30, 2018 the Texas District Court Judge issued an order staying the judgment pending appeal, it is unclear how this decision, subsequent appeals, and other efforts to repeal and replace the ACA will impact the ACA.

Other legislative changes have been proposed and adopted since the ACA was enacted, including aggregate reductions of Medicare payments to providers of 2% per fiscal year and reduced payments to several types of Medicare providers, which will remain in effect through 2027 absent additional congressional action. Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed and enacted legislation designed, among other things, to bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for pharmaceutical products. Individual states in the United States have also become increasingly active in implementing regulations designed to control pharmaceutical 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, mechanisms to encourage importation from other countries and bulk purchasing. Furthermore, there has been increased interest by third party payors and governmental authorities in reference pricing systems and publication of discounts and list prices.

Employees

As of March 31, 2020, we had 34 full-time employees. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

Facilities

Our principal office is located at 480 Arsenal Way, Watertown, Massachusetts, where we lease approximately 22,343 square feet of office and laboratory space. We lease this space under a lease agreement, as

amended, that terminates on April 30, 2023. We believe that our facilities are sufficient to meet our current needs and that suitable additional space will be available as and when needed.

Corporate Information

We were incorporated under the laws of the state of Delaware in November 2005 under the name WMR Biomedical, Inc. In July 2018, we changed our name to Lyra Therapeutics, Inc. Our principal executive offices are located at 480 Arsenal Way, Watertown, MA 02472 and our telephone number is (617) 393-4600. Our website address is *www.lyratherapeutics.com*. The information contained in, or accessible through, our website does not constitute a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Legal Proceedings

We are not subject to any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the name, age and position of each of our executive officers and directors as of the date of this prospectus.

Name	Age	Position
Executive Officers		
Maria Palasis, Ph.D.	55	President and Chief Executive Officer and Director
R. Don Elsey	66	Chief Financial Officer, Treasurer and Secretary
Laura Edgerly-Pflug	57	Senior Vice President of Technical Operation
Corinne Noyes	52	Senior Vice President of Commercial Strategy and Market Development
Directors		
Michael Altman	38	Director
Edward Anderson(1)	70	Director
Robert S. Langer, Sc.D.	71	Director
C. Ann Merrifield(1)(2)(3)	69	Director
Konstantin Poukalov	36	Director
W. Bradford Smith(1)(2)(3)	64	Director
George Whitesides, Ph.D.	80	Director

(1) Member of the audit committee.
(2) Member of the compensation committee.
(3) Member of the nominating and corporate governance committee.

Executive Officers

Maria Palasis, Ph.D. has served as our President and Chief Executive Officer and a member of our board of directors since January 2015. Prior to her role with us as President and Chief Executive Officer, Dr. Palasis held positions of increasing responsibility, the most recent of which was Executive Vice President and Chief Technology Officer from 2011 to 2015. Before that, in 2008, Dr. Palasis joined Arsenal Medical, Inc., a biotechnology company, as Executive Vice President and subsequently served as President and Chief Executive Officer and a member of the board of directors of Arsenal Medical from January 2015 to June 2018. Before that, from November 1995 to January 2008, Dr. Palasis served as Director at Boston Scientific Corporation, a medical device company, where she managed a portfolio of external biotech and medical device investments and led the development of several combination therapies. Dr. Palasis holds a B.S. and Ph.D. in Chemical Engineering from the University of Cincinnati, and she held a postdoctoral fellowship in molecular biology at the University of Cincinnati School of Medicine. We believe that Dr. Palasis' experience in the industry and knowledge of our company qualifies her to serve on our board of directors.

R. Don Elsey has served as our Chief Financial Officer since August 2019 and as our Treasurer and Secretary since October 2019. Prior to joining our company, from February 2015 to February 2019, Mr. Elsey served as Chief Financial Officer at Senseonics, Inc., a medical device company. From May 2014 until February 2015, Mr. Elsey served as Chief Financial Officer of Regado Biosciences, Inc., a biopharmaceutical company. From December 2012 to February 2014, Mr. Elsey served as Chief Financial Officer of LifeCell Corporation, a privately held regenerative medicine company. Mr. Elsey holds a B.A. in economics and an M.B.A. in finance from Michigan State University.

Laura Edgerly-Pflug has served as our Senior Vice President of Technical Operations since July 2019. Prior to joining our company, from October 2016 to June 2019, Ms. Edgerly-Pflug served as Vice President of

Manufacturing Operations and Quality Control at Adgero Biopharmaceuticals Holdings, Inc., a biopharmaceutical company, where she led the manufacturing, formulation, analytical, and quality control and assurance activities for the development of a therapeutic. Before that, from January 2014 to September 2016, Ms. Edgerly-Pflug was the Owner at Pflug BioPharm Solutions, a biopharmaceutical consulting firm, where she provided strategic direction and implementation to clients in the areas of manufacturing, quality assurance, new technologies, new products and life cycle initiatives. Before that, from June 2012 to December 2013, Ms. Edgerly-Pflug served as Vice President of Technical Operations and Chemistry, Manufacturing and Controls at Insmed Incorporated, formerly Transave Inc., a pharmaceutical company, where she was responsible for product development and manufacturing of sterile liposomal products from preclinical development through commercialization. From July 2006 to June 2012, she served as Executive Director of Technical Operations and Chemistry, Manufacturing and Controls at Insmed. Ms. Edgerly-Pflug earned a B.S. in Chemistry from Kean College of New Jersey.

Corinne Noyes has served as our Senior Vice President of Commercial Strategy and Market Development since September 2018. Prior to joining our company, from January 2018 to August 2018, Ms. Noyes served as an independent contractor to our Company, providing biopharmaceutical consulting services. Before that, from January 2005 to August 2018, Ms. Noyes worked as a strategic advisor and independent biopharmaceutical consultant providing commercial leadership to emerging life sciences companies, including, among others, AMAG Pharmaceuticals, Inc., Avila Therapeutics, Inc. (Celgene Corporation), Adnexus Therapeutics Inc. (Bristol-Myers Squibb Company), Constellation Pharmaceuticals, Inc., and Editas Medicine, Inc. Before that, from 1997 to 2004, Ms. Noyes held various commercial leadership positions at Biogen Inc., a biotechnology company. Prior to joining Biogen Inc., from 1992 to 1996, Ms. Noyes worked as a health care strategy consultant at Deloitte & Touche LLP. Ms. Noyes holds a B.A. in Humanities and a B.B.A. in Business from St. Mary's College of Notre Dame and an M.B.A. in finance from University of Chicago Graduate School of Business.

In April 2020, Dana Washburn, M.D. stepped down from his role as our Chief Medical Officer and transitioned to serving as a consultant.

Non-Employee Directors

Michael Altman has served as a member of our board of directors since June 2018. Since 2007, Mr. Altman has been employed on the investment team at Perceptive Advisors, a life sciences focused investment firm, where he currently serves as Managing Director and focuses on medical devices, diagnostics, digital health and specialty pharmaceuticals investments. Since October 2018, Mr. Altman has also served as Chief Financial Officer and member of the board of directors of ARYA Sciences Acquisition Corp., a special purpose acquisition company. From October 2005 to October 2007, Mr. Altman served as a healthcare trader and analyst at First New York Securities. Mr. Altman has served on the board of directors of Vitruvius Therapeutics, Inc., a pharmaceutical company, since December 2017, and served on the board of directors of Vensun Pharmaceuticals, Inc., a pharmaceutical company, from November 2016 to January 2019. Mr. Altman holds a B.S. in Business Administration from the University of Vermont. We believe that Mr. Altman's broad operational and transactional experience qualifies him to serve on our board of directors.

Edward Anderson. has served as a member of our board of directors since February 2019. Since June 1994, Mr. Anderson has served as the Founder and a Managing Partner at North Bridge Venture Partners & Growth Equity, a venture capital firm. Mr. Anderson holds a B.F.A. from the University of Denver and an M.B.A. from Columbia University Graduate School of Business. We believe that Mr. Anderson's extensive experience in venture capital investments qualifies him to serve on our board of directors.

Robert S. Langer, Sc.D. has served as a member of our board of directors since March 2006. Since 2005, Dr. Langer has served as a David H. Koch Institute Professor at the Massachusetts Institute of Technology. Dr. Langer has served on the board of directors of Abpro Corporation, a biotechnology company, since December 2016 and since September 2016 on the board of directors of Frequency Therapeutics, Inc., a biotechnology company. Dr. Langer has also served on the board of directors of Rubius Therapeutics, Inc., a biopharmaceutical company, since December 2014 and since December 2010 on the board of directors of

Moderna, Inc., a biopharmaceutical company. Dr. Langer has also served on the board of directors of Puretech Health plc, a biotechnology company, and previously served on the boards of directors of Momenta Pharmaceuticals, Inc., a biotechnology company, Wyeth Pharmaceuticals, a biopharmaceutical company, Kala Pharmaceuticals, Inc., a biopharmaceutical company, Fibrocell Science, Inc., a biotechnology company, and Millipore Corp., a life-sciences device manufacturer. Dr. Langer holds a Sc.D. in Chemical Engineering from the Massachusetts Institute of Technology and a B.S. in Chemical Engineering from Cornell University. We believe Dr. Langer's pioneering academic work, extensive medical and scientific knowledge, and experience serving on public company boards of directors qualify him to serve on our board of directors.

C. Ann Merrifield has served as a member of our board of directors since September 2019. Ms. Merrifield has also served as a member of the boards of directors for a portfolio of public and private companies in the life sciences sector which include Flexion Therapeutics, Inc., since June 2014, InVivo Therapeutics Holdings Corp., since November 2014 and Veritas Genetics Inc., since December 2016. From July 2015 to August 2018, she served as a director of Juniper Pharmaceuticals, Inc., until it was acquired by Catalent, Inc. Ms. Merrifield also serves as a Trustee for MassMutual Premier, Select and MML Series Investment Funds, Partners Continuing Care (the post-acute care services division of Partners HealthCare) and the Huntington Theatre Company. From November 2012 to July 2014, Ms. Merrifield served as President, Chief Executive Officer and director of PathoGenetix Inc., a genomics company, which voluntarily filed for Chapter 7 bankruptcy in July 2014. Before that, Ms. Merrifield spent 18 years at Genzyme Corporation, serving in several leadership roles, including President of Genzyme Biosurgery, President of Genzyme Genetics and Senior Vice President, Business Excellence. Ms. Merrifield holds a B.A. in Zoology and a Master of Education from the University of Maine and an M.B.A. from the Tuck School of Business at Dartmouth College. We believe that Ms. Merrifield's extensive industry experience qualifies her to serve on our board of directors.

Konstantin Poukalov has served as a member of our board of directors since January 2020. Since March 2019, Mr. Poukalov has served as Managing Director at Perceptive Advisors, a life sciences focused investment firm. Since August 2019, Mr. Poukalov has also served on the board of directors of Landos Biopharma, Inc., a biopharmaceutical company. From July 2012 to October 2018, Mr. Poukalov served in roles of increasing responsibility at Kadmon Holdings, Inc., a biopharmaceutical company, most recently serving as Executive Vice President and Chief Financial Officer from July 2014 to October 2018. Mr. Poukalov holds a B.S. in Electrical Engineering from Stony Brook University. We believe that Mr. Poukalov's extensive financial and industry experience qualify him to serve on our board of directors.

W. Bradford Smith has served a member of our board of directors since November 2019. Mr. Smith has served as Chief Financial Officer and Treasurer of Homology Medicines, Inc., a genetic medicines company, since April 2017 and as Secretary since July 2017. From March 2014 to April 2017, Mr. Smith was Chief Financial Officer of Ocular Therapeutix, Inc., a biopharmaceutical company. Prior to joining Ocular Therapeutix, Mr. Smith served as Chief Financial Officer of OmniGuide, Inc., a medical device company, from July 2008 to March 2014. Mr. Smith holds a B.S. in Biology from Tufts University and an M.B.A. from the Whittemore School of Business and Economics at the University of New Hampshire. We believe that Mr. Smith's extensive financial and industry experience qualify him to serve on our board of directors.

George Whitesides, Ph.D. has served as a member of our board of directors since March 2006. Since 2004, he has served as the Woodford L. and Ann A. Flowers University Professor at Harvard University. Dr. Whitesides joined Harvard's department of chemistry in 1982 and served as department chairman from 1986 to 1989. From 1963 to 1982, he was a faculty member at the Massachusetts Institute of Technology. Dr. Whitesides held advisory positions on the National Research Council, National Science Foundation and the Department of Defense's Defense Advanced Research Projects Agency (DARPA), and is a member of the American Academy of Arts and Sciences, National Academy of Sciences, National Academy of Engineering and the American Philosophical Society, among other organizations. Dr. Whitesides has served on the board of directors of Theravance Biopharma, Inc., a biopharmaceutical company, since October 2013. Dr. Whitesides is also a co-founder of a number of companies, including Genzyme Corporation, GelTex Pharmaceuticals Inc.,

Theravance Biopharma, Inc., Soft Robotics Inc. and Arsenal Medical, Inc. Dr. Whitesides holds an A.B. from Harvard University and a Ph.D. in chemistry from the California Institute of Technology. We believe that Dr. Whitesides' extensive scientific and industry experience qualifies him to serve on our board of directors.

Board Composition and Election of Directors

Director Independence

Our board of directors currently consists of eight members. Our board of directors has determined that, of our eight directors, Michael Altman, Edward Anderson, Robert S. Langer, Sc.D., C. Ann Merrifield, Konstantin Poukalov and W. Bradford Smith do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the rules of The Nasdaq Stock Market LLC, or Nasdaq. There are no family relationships among any of our directors or executive officers.

Classified Board of Directors

In accordance with our restated certificate of incorporation that will go into effect upon the closing of this offering, our board of directors will be divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Effective upon the closing of this offering, our directors will be divided among the three classes as follows:

- the Class I directors will be Edward Anderson, Konstantin Poukalov and George Whitesides, Ph.D., and their terms will expire at our first annual meeting of stockholders following this offering;
- the Class II directors will be C. Ann Merrifield, Michael Altman and Robert Langer, Sc.D., and their terms will expire at our second annual meeting of stockholders following this offering; and
- the Class III directors will be Maria Palasis, Ph.D. and W. Bradford Smith, and their terms will expire at the third annual meeting of stockholders following this offering.

Our restated certificate of incorporation that will go into effect upon the closing of this offering will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase 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. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control of our company. Our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of our outstanding voting stock entitled to vote in the election of directors.

Our directors were elected to and currently serve on the board pursuant to a voting agreement among us and several of our largest stockholders. See "Certain Relationships and Related Party Transactions—Voting Agreement." This agreement will terminate upon the closing of this offering, after which there will be no further contractual obligations regarding the election of our directors.

Board Leadership Structure

Our board of directors is currently chaired by Maria Palasis, Ph.D. Our corporate governance guidelines provide that, if the chairman of the board is a member of management or does not otherwise qualify as independent, the independent directors of the board may elect a lead independent director. C. Ann Merrifield currently serves as our lead independent director. The lead independent director's responsibilities include, but are

not limited to: presiding over all meetings of the board of directors at which the chairman is not present, including any executive sessions of the independent directors; approving board meeting schedules and agendas; and acting as the liaison between the independent directors and the chief executive officer and chairman of the board. Our corporate governance guidelines further provide the flexibility for our board of directors to modify our leadership structure in the future as it deems appropriate.

Role of the Board in Risk Oversight

One of the key functions of our board of directors is informed oversight of our risk management process. Our board of directors does not have a standing risk management committee, but rather administers this oversight function directly through our board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure and our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. Our audit committee also monitors compliance with legal and regulatory requirements. Our nominating and corporate governance committee monitors the effectiveness of our corporate governance practices, including whether they are successful in preventing illegal or improper liability-creating conduct. Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, our entire board of directors is regularly informed through committee reports about such risks.

Board Committees

Our board of directors has an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and the responsibilities described below. In addition, from time to time, special committees may be established under the direction of our board of directors when necessary to address specific issues.

Each of the three standing committees—audit, compensation and nominating and corporate governance—operate under a charter that has been approved by our board of directors. Upon our listing on The Nasdaq Global Market, each committee's charter will be available under the Corporate Governance section of our website at *www.lyratherapeutics.com*. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this prospectus.

Audit Committee

The audit committee's responsibilities include, among other things:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- coordinating our board of directors' oversight of our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;

- discussing our risk management policies;
- meeting independently with our internal auditing staff, if any, registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by Securities Exchange Commission, or SEC, rules.

The members of our audit committee are Edward Anderson, C. Ann Merrifield and W. Bradford Smith. W. Bradford Smith serves as the chairperson of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable listing rules of Nasdaq, or the Nasdaq rules. Our board of directors has determined that each of these individuals meets the independence requirements of Rule 10A-3 under the Exchange Act and the applicable Nasdaq rules. Each member of our audit committee can read and understand fundamental financial statements in accordance with the Nasdaq audit committee requirements. In arriving at this determination, the board has examined each audit committee member's scope of experience and the nature of their prior and/or current employment. Our board of directors has determined that W. Bradford Smith is an "audit committee financial expert" as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable Nasdaq rules.

We believe that the composition and functioning of our audit committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee

The compensation committee's responsibilities include, among other things:

- reviewing and approving, or recommending for approval by the board of directors, the compensation of our CEO and our other executive officers;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to our board of directors with respect to director compensation;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis," to the extent required; and
- preparing the annual compensation committee report required by SEC rules, to the extent required.

The members of our compensation committee are C. Ann Merrifield and W. Bradford Smith. C. Ann Merrifield serves as the chairperson of the committee. Our board of directors has determined that each of C. Ann Merrifield and W. Bradford Smith is independent under the applicable Nasdaq rules, including the Nasdaq rules specific to membership on the compensation committee, and is a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act.

We believe that the composition and functioning of our compensation committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee's responsibilities include, among other things:

- identifying individuals qualified to become board members;
- recommending to our board of directors the persons to be nominated for election as directors and to each board committee;
- developing and recommending to our board of directors corporate governance guidelines, and reviewing and recommending to our board of directors proposed changes to our corporate governance guidelines from time to time; and
- overseeing a periodic evaluation of our board of directors.

The members of our nominating and corporate governance committee are C. Ann Merrifield and W. Bradford Smith. C. Ann Merrifield serves as the chairperson of the committee. Our board of directors has determined that C. Ann Merrifield and W. Bradford Smith are independent under the applicable Nasdaq rules and the SEC rules and regulations.

Compensation Committee Interlocks and Insider Participation

No member of our compensation committee is or has been our current or former officer or employee. None of our executive officers currently serves, or in the past year has served, as a director or a member of a compensation committee (or other committee serving an equivalent function) of any other entity, one of whose executive officers served as a director or member of our compensation committee.

Code of Ethics and Code of Conduct

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Upon our listing on The Nasdaq Global Market, our code of business conduct and ethics will be available under the Corporate Governance section of our website at *www.lyratherapeutics.com*. In addition, we intend to post on our website all disclosures that are required by law or the Nasdaq rules concerning any amendments to, or waivers from, any provision of the code. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this prospectus.

EXECUTIVE AND DIRECTOR COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the "2019 Summary Compensation Table" below. In 2019, our "named executive officers" and their positions were as follows:

- Maria Palasis, Ph.D., President and Chief Executive Officer;
- R. Don Elsey, Chief Financial Officer; and
- Laura Edgerly-Pflug, Senior Vice President of Technical Operations.

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.

2019 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2019.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(2)	All Other Compensation ($)	Total ($)
Maria Palasis, Ph.D. *President and Chief Executive Officer*	2019	388,025	—	318,850	135,809	—	842,684
R. Don Elsey *Chief Financial Officer*	2019	130,625(3)	—	501,247	41,671	64,235(4)	737,778
Laura Edgerly-Pflug *Senior Vice President of Technical Operations*	2019	152,923(3)	50,000(5)	43,687	40,658	29,158(6)	316,426

(1) Amounts represent the full grant date fair value of stock options granted during 2019 computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. We provide information regarding the assumptions used to calculate the value of all option awards made to named executive officers in Note 8 to the consolidated financial statements included in this prospectus.
(2) Amounts represent discretionary performance-based annual cash bonuses made by our board for the named executive officers for fiscal year 2019.
(3) Mr. Elsey commenced employment with us in July 2019, and Ms. Edgerly-Pflug commenced employment with us in a part-time capacity in June 2019 and in a full-time capacity in July 2019.
(4) Amount represents use of a corporate apartment, commuting expenses and related tax gross-ups.
(5) Amount represents a signing bonus.
(6) Amount represents reimbursement of commuting expenses and related tax gross-up.

Narrative to Summary Compensation Table

2019 Salaries

The named executive officers receive a base salary to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. For 2019, our board of directors

established an annual base salary of $388,025 for Dr. Palasis, effective January 1, 2019. Mr. Elsey's and Ms. Edgerly-Pflug's 2019 annual base salaries were $325,000 and $280,000, respectively, and were established by our board of directors in connection with their commencing employment with us. During the period in which Ms. Edgerly-Pflug was employed with us in a part-time capacity, her annual base salary was $140,000.

The base salaries of our named executive officers were further adjusted in connection with this offering. See "Recent Changes in Executive Compensation—Annual Base Salaries" below for additional information.

2019 Bonuses

We offer our named executive officers the opportunity to earn annual cash bonuses to compensate them for attaining short-term company goals as approved by our board of directors. For 2019, bonuses were based entirely on (i) completing steps towards a Phase 2 LANTERN trial for LYR-210 and attaining other value-driving milestones, (ii) attaining corporate goals relating to overall business development and fundraising and (iii) building an executive team and board of directors, with these categories weighted at 30%, 50% and 20%, respectively. The 2019 target bonuses for each of Dr. Palasis, Mr. Elsey and Ms. Edgerly-Pflug were 35%, 30% and 25%, respectively, of his or her annual base salary. The target cash bonuses for Mr. Elsey and Ms. Edgerly-Pflug were prorated from their respective dates of hire. The actual annual cash bonuses awarded to each named executive officer for 2019 performance are set forth above in the 2019 Summary Compensation Table in the column titled "Non-Equity Incentive Plan Compensation".

The target bonuses for our named executive officers were further adjusted in connection with this offering. See "Recent Changes in Executive Compensation—Target Bonuses" below for additional information.

Equity Compensation

We offer stock options to our employees, including our named executive officers, as the long-term incentive component of our compensation program. Our stock options generally allow employees to purchase shares of our common stock at a price equal to the fair market value of our common stock on the date of grant, as determined by the board of directors. With respect to grants made in connection with the commencement of employment, our stock options typically vest as to 25% of the underlying shares on the first anniversary of the vesting commencement date and in equal monthly installments over the following three years, subject to the holder's continued employment with us. From time to time, our board of directors may also construct alternate vesting schedules as it determines are appropriate to motivate particular employees. Historically, our stock options have been intended to qualify as "incentive stock options" to the extent permitted under the Internal Revenue Code.

The following table sets forth the stock options granted to our named executive officers in during 2019.

Named Executive Officer	2019 Stock Options Granted
Maria Palasis, Ph.D.	170,455
R. Don Elsey	74,783
Laura Edgerly-Pflug	14,499

These options were granted under our 2016 Equity Incentive Plan, which we refer to as the 2016 Plan, with exercise prices equal to the fair market value of our common stock on the date of grant, as determined by the board of directors, and with respect to Dr. Palasis, vest in equal monthly installments over four years following the vesting commencement date and with respect to Mr. Elsey and Ms. Edgerly-Pflug, subject to our standard vesting schedule for grants made in connection with the commencement of employment described above.

In connection with this offering, we intend to adopt a 2020 Incentive Award Plan, referred to below as the 2020 Plan, in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of our company and to enable our company to obtain and retain services of these individuals. Following the effective date of the 2020 Plan, we will not make any further grants under the 2016 Plan. However, the 2016 Plan will continue to govern the terms and conditions of the outstanding awards granted under it. For additional information about the 2020 Plan, please see the section titled "Incentive Compensation Plans" below.

Other Elements of Compensation

Retirement Plan

We maintain a 401(k) retirement savings plan for our employees, including our named executive officers, who satisfy certain eligibility requirements. Our named executive officers are eligible to participate in the 401(k) plan on the same terms as other full-time employees. We believe that providing a vehicle for tax-deferred retirement savings though our 401(k) plan adds to the overall desirability of our executive compensation package and further incentivizes our employees, including our named executive officers, in accordance with our compensation policies.

Employee Benefits and Perquisites

All of our full-time employees, including our named executive officers, are eligible to participate in our employee benefit plans and programs, including medical, dental, and vision benefits, health spending accounts, and short- and long-term disability, accidental death and dismemberment, and life insurance, to the same extent as our other full-time employees, subject to the terms and eligibility requirements of those plans. For 2019, we did not provide an employer matching contribution under our 401(k) plan.

Outstanding Equity Awards at 2019 Fiscal Year-End

The following table summarizes the number of shares of common stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2019.

	Option Awards					
Name	Vesting Commencement Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date
Maria Palasis, Ph.D.	11/16/2011	22,793	—	—	8.63	11/16/2021
	2/26/2013	24,358	—	—	21.73	6/26/2023
	1/1/2015	94,287	—	—	22.76	9/23/2025
	6/13/2017	31,429	—	31,429(2)	1.73	6/13/2027
	3/6/2019	31,960	138,495(1)	—	2.76	3/6/2029
R. Don Elsey	7/29/2019	—	74,783(3)	—	4.49	9/24/2029
Laura Edgerly-Pflug	6/3/2019	—	14,499(3)	—	4.49	6/20/2029

(1) Options vest and become exercisable in equal monthly installments over four years following the vesting commencement date, subject to Dr. Palasis' continued employment with us on each applicable vesting date.

(2) Options vest and become exercisable at the end of any given three-month period occurring prior to six years from the vesting commencement date in which we recognize revenue from the commercial sale of an FDA-

approved product each month and in amounts, with respect to the second and third months of such period that increase from the revenue recognized from such product sales in the immediately preceding month, subject to Dr. Palasis' continued employment with us on each applicable vesting date.

(3) Options vest and become exercisable as to 25% of the underlying shares on the first anniversary of the vesting commencement date and in 36 equal monthly installments over the following three years, subject to the named executive officer's continued employment with us on each applicable vesting date.

Recent Changes in Executive Compensation

In anticipation and subject to the consummation of this offering, our board of directors approved certain changes to our named executive officers' compensation arrangements. These include adjusting annual base salaries and target bonus opportunities, granting equity incentive awards and entering into new employment agreements, each as described in more detail below.

Annual Base Salaries

Our board of directors approved increases to the annual base salaries of our named executive officers, effective upon the closing of this offering, as follows: Dr. Palasis, $500,000; Mr. Elsey, $375,000; and Ms. Edgerly-Pflug, $300,000.

Target Bonuses

Our board of directors approved increases to the target bonus amounts for our named executive officers that will become effective upon the closing of this offering. The target bonus amounts were set at 55% of annual base salary for Dr. Palasis, 40% of annual base salary for Mr. Elsey and 35% of annual base salary for Ms. Edgerly-Pflug.

Equity Incentive Awards

Effective on the date that the registration statement of which this prospectus forms a part becomes effective, our board of directors approved the award of incentive stock options under the 2020 Plan to our named executive officers in the following amounts: 326,303 shares to Ms. Palasis, 20,635 shares to Mr. Elsey, and 20,046 shares to Ms. Edgerly-Pflug. The stock options will have a per share exercise price equal to the initial public offering price per share of our common stock and will vest in 48 equal monthly installments following the date of grant, subject to the continued service of the applicable named executive officer.

Executive Employment Agreements

In connection with this offering, we entered into new employment agreements with each of our named executive officers that will supersede their prior employment arrangements with us effective on consummation of this offering. The employment agreements entitle Dr. Palasis, Mr. Elsey and Ms. Edgerly-Pflug to receive annual base salaries and annual target bonus opportunities described above under the headings "—Annual Base Salaries" and "—Target Bonuses". Through December 31, 2020, and subject to renewal by our board thereafter, Mr. Elsey is also entitled to (i) reimbursement of reasonable travel expenses from his home in Maryland to our offices in Massachusetts, (ii) use of a corporate apartment while working in Massachusetts and (iii) reimbursement for income and employment taxes incurred by Mr. Elsey as a result of these commuting payments and benefits. The total amount for (i) through (iii) may not exceed $75,000.

Under the new employment agreements, if we terminate the employment of Dr. Palasis, Mr. Elsey or Ms. Edgerly-Pflug without "cause" or the executive resigns for "good reason" (each as defined below), subject to the executive's timely execution of a release of claims and continued compliance with a separate restrictive covenant agreement (described below), the executive is entitled to receive (i) base salary continuation for a

period of 12 months for Dr. Palasis, 9 months for Mr. Elsey and 6 months for Ms. Edgerly-Pflug; (ii) payment of any annual bonus for the prior year earned but unpaid as of the date of termination and (iii) direct payment of or reimbursement for continued medical, dental or vision coverage pursuant to COBRA for up to 12 months for Dr. Palasis, 9 months for Mr. Elsey and 6 months for Ms. Edgerly-Pflug, less the amount each named executive officer would have had to pay to receive such coverage as an active employee based on the cost sharing levels in effect on the named executive officer's termination date.

If we terminate Dr. Palasis, Mr. Elsey or Ms. Edgerly-Pflug without "cause" or the executive resigns for "good reason," in either case, on or within three months prior to or 12 months following a change in control, then, in lieu of the severance benefits described above, subject to the executive's timely execution of a release of claims, the executive is entitled to receive (i) an amount equal in cash equal to 1.5 times for Dr. Palasis, one times for Mr. Elsey and 0.75 times for Ms. Edgerly-Pflug the sum of the named executive officer's annual base salary plus target annual bonus for the year of termination, (ii) payment of any annual bonus for the prior year earned but unpaid as of the date of termination, (iii) direct payment of or reimbursement for continued medical, dental or vision coverage pursuant to COBRA for up to 18 months for Dr. Palasis, 12 months for Mr. Elsey and 9 months for Ms. Edgerly-Pflug, less the amount each named executive officer would have had to pay to receive such coverage as an active employee based on the cost sharing levels in effect on the named executive officer's termination date, and (iv) accelerated vesting of all unvested equity or equity-based awards held by the named executive officer that vest solely based on the passage of time, with any such awards that vest based on the attainment of performance-vesting conditions being governed by the terms of the applicable award agreement.

Each of our named executive officers has agreed to refrain from competing with us while employed and following his or her termination of employment for any reason for a period of one year and to refrain from soliciting our employees or customers while employed and following his or her termination of employment for any reason for a period of two years.

For purposes of the employment agreements, "cause" generally means the named executive officer's refusal to substantially perform the duties associated with his or her position with our company or to carry out the reasonable and lawful instructions of our board of directors concerning duties or actions consistent with his or her position, his or her breach of a material provision of the employment agreement which remains uncured (to the extent capable of cure) for a period of 30 days following written notice from our company, his or her conviction, plea of no contest or nolo contendere or imposition of unadjudicated probation for any felony or crime involving moral turpitude, his or her unlawful use (including being under the influence) or possession of illegal drugs on our premises or while performing his or her duties and responsibilities under the employment agreement, or his or her commission of any act of fraud, embezzlement, misappropriation, willful misconduct, or breach of fiduciary duty against us.

For purposes of the employment agreements, "good reason" generally means, subject to certain cure rights, the named executive officer's termination of employment due to a reduction in salary or target bonus (other than a reduction of 20% or less of the named executive officer's base salary implemented as part of an across the board, proportionate reduction of base salaries for other members of our management team), a material decrease in authority or areas of responsibility, our company's breach of any one or more of the material provisions of the employment agreement, or a relocation by our company of the named executive officer's primary office to a location more than 50 miles from the named executive officer's primary office on the date of the agreement.

Director Compensation

2019 Director Compensation Table

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)	Total ($)
Robert Langer Sc.D.	$25,000	—	$25,000
George Whitesides Ph.D.	$25,000	—	$25,000
Michael Altman	—	—	—
C. Ann Merrifield	$ 6,904	$22,911	$29,815
Edward Anderson	—	—	—
W. Bradford Smith	$ 2,356	—	$ 2,356
Konstantin Poukalov	—	—	—

(1) Amounts reflect the full grant-date fair value of stock awards and stock options granted during 2019 computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. We provide information regarding the assumptions used to calculate the value of all stock awards and option awards made to our directors in Note 8 to the consolidated financial statements included in this prospectus.

The table below shows the aggregate numbers of option awards (exercisable and unexercisable) held as of December 31, 2019 by each non-employee director who was serving as of December 31, 2019. None of our non-employee directors held unvested stock awards as of December 31, 2019.

Name	Options Outstanding at Fiscal Year End
Robert Langer Sc.D.	107,084
George Whitesides Ph.D.	92,585
Michael Altman	—
C. Ann Merrifield	3,479
Edward Anderson	—
W. Bradford Smith	—
Konstantin Poukalov	—

Non-Employee Director Compensation Program

Effective on the effectiveness of the registration statement of which this prospectus forms a part, we adopted, and our stockholders approved, a compensation program for our non-employee directors under which each non-employee director will receive the following amounts for their services on our board of directors:

- Upon the director's initial election or appointment to our board of directors that occurs after our initial public offering, an option to purchase 14,500 shares of our common stock;
- If the director has served on our board of directors for at least six months as of the date of an annual meeting of stockholders and will continue to serve as a director immediately following such meeting, an option to purchase 7,250 shares of our common stock on the date of the annual meeting;
- An annual director fee of $40,000;

- If the director serves as lead independent director or chair or on a committee of our board of directors, an additional annual fee as follows:
  - Chair of the board or lead independent director: $25,000;
  - Chair of the audit committee: $20,000;
  - Audit committee member other than the chair, $7,500;
  - Chair of the compensation committee, $15,000;
  - Compensation committee member other than the chair, $5,000;
  - Chair of the nominating and corporate governance committee, $8,000; and
  - Nominating and corporate governance committee member other than the chair, $4,000.

Director fees under the program will be payable in arrears in four equal quarterly installments not later than the fifteenth day following the final day of each calendar quarter, provided that the amount of each payment will be prorated for any portion of a quarter that a director is not serving on our board and no fee will be payable in respect of any period prior to the effective date of the registration statement of which this prospectus is a part.

Stock options granted to our non-employee directors under the program will have an exercise price equal to the fair market value of our common stock on the date of grant and will expire not later than ten years after the date of grant. The stock options granted upon a director's initial election or appointment will vest in 36 substantially equal monthly installments following the date of grant. The stock options granted annually to directors will vest in a single installment on the earlier of the day before the next annual meeting or the first anniversary of the date of grant. In addition, all unvested stock options will vest in full upon the occurrence of a change in control.

IPO Grants to Non-Employee Directors under the 2020 Plan

Effective on the effectiveness of the registration statement of which this prospectus forms a part, our board of directors approved the grant to each of Michael Altman, Edward Anderson, Robert Langer, Sc.D., Konstantin Poukalov and George Whitesides, Ph.D. of an option under the 2020 Plan to purchase 14,500 shares of our common stock at an exercise price per share equal to the initial public offering price per share of our common stock. Each option will vest in 36 substantially equal monthly installments following the date of grant, subject to such director's continued service through each applicable vesting date and accelerated vesting upon a change in control.

Whitesides Stock Award

In connection with this offering, our board of directors granted to George Whitesides an award of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering. The grant of the award will be effective as of the effectiveness of the registration statement on Form S-8 registering the issuance of the shares subject to the award.

Incentive Compensation Plans

The following summarizes the material terms of 2020 Plan and the 2020 Employee Stock Purchase Plan, which will be the long-term incentive compensation plans in which our directors and named executive officers are eligible to participate following the consummation of this offering, and the 2016 Plan, under which

we have previously made periodic grants of equity and equity-based awards to our directors and named executive officers.

2020 Incentive Award Plan

Effective the day prior to the first public trading date of our common stock, we intend to adopt and ask our stockholders to approve the 2020 Plan, under which we may grant cash and equity-based incentive awards to eligible service providers in order to attract, retain and motivate the persons who make important contributions to our company. The material terms of the 2020 Plan are summarized below.

Eligibility and Administration

Our employees, consultants and directors, and employees and consultants of our subsidiaries, will be eligible to receive awards under the 2020 Plan. The 2020 Plan will be administered by our board of directors, which may delegate its duties and responsibilities to one or more committees of our directors and/or officers (referred to collectively as the plan administrator below), subject to the limitations imposed under the 2020 Plan, Section 16 of the Exchange Act, stock exchange rules and other applicable laws. The plan administrator will have the authority to take all actions and make all determinations under the 2020 Plan, to interpret the 2020 Plan and award agreements and to adopt, amend and repeal rules for the administration of the 2020 Plan as it deems advisable. The plan administrator will also have the authority to grant awards, determine which eligible service providers receive awards and set the terms and conditions of all awards under the 2020 Plan, including any vesting and vesting acceleration provisions, subject to the conditions and limitations in the 2020 Plan.

Shares Available for Awards

An aggregate of 2,100,000 shares of our common stock will initially be available for issuance under the 2020 Plan. The number of shares initially available for issuance will be increased by an annual increase on January 1 of each calendar year beginning in 2021 and ending in and including 2030, equal to the lesser of (A) 4% of the shares of common stock outstanding on the final day of the immediately preceding calendar year and (B) a smaller number of shares determined by our board of directors. No more than 8,800,000 shares of common stock may be issued under the 2020 Plan upon the exercise of incentive stock options. Shares issued under the 2020 Plan may be authorized but unissued shares, shares purchased on the open market or treasury shares.

If an award under the 2020 Plan or the 2016 Plan, expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, canceled without having been fully exercised or forfeited, any unused shares subject to the award will, as applicable, become or again be available for new grants under the 2020 Plan. Awards granted under the 2020 Plan in substitution for any options or other stock or stock-based awards granted by an entity before the entity's merger or consolidation with us or our acquisition of the entity's property or stock will not reduce the shares available for grant under the 2020 Plan, but may count against the maximum number of shares that may be issued upon the exercise of incentive stock options, or ISOs.

Awards

The 2020 Plan provides for the grant of stock options, including ISOs, and nonqualified stock options, or NSOs, stock appreciation rights, or SARs, restricted stock, dividend equivalents, restricted stock units, or RSUs, and other stock or cash based awards. Certain awards under the 2020 Plan may constitute or provide for payment of "nonqualified deferred compensation" under Section 409A of the Code. All awards under the 2020 Plan will be set forth in award agreements, which will detail the terms and conditions of awards, including any applicable vesting and payment terms and post-termination exercise limitations. A brief description of each award type follows.

- Stock Options and SARs. Stock options provide for the purchase of shares of our common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding

period and other requirements of the Code are satisfied. SARs entitle their holder, upon exercise, to receive from us an amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The plan administrator will determine the number of shares covered by each option and SAR, the exercise price of each option and SAR and the conditions and limitations applicable to the exercise of each option and SAR. The exercise price of a stock option or SAR will not be less than 100% of the fair market value of the underlying share on the grant date (or 110% in the case of ISOs granted to certain significant stockholders), except with respect to certain substitute awards granted in connection with a corporate transaction. The term of a stock option or SAR may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders).

- Restricted Stock and RSUs. Restricted stock is an award of nontransferable shares of our common stock that remain forfeitable unless and until specified conditions are met and which may be subject to a purchase price. RSUs are contractual promises to deliver shares of our common stock in the future, which may also remain forfeitable unless and until specified conditions are met and may be accompanied by the right to receive the equivalent value of dividends paid on shares of our common stock prior to the delivery of the underlying shares. The plan administrator may provide that the delivery of the shares underlying RSUs will be deferred on a mandatory basis or at the election of the participant. The terms and conditions applicable to restricted stock and RSUs will be determined by the plan administrator, subject to the conditions and limitations contained in the 2020 Plan.

- Other Stock or Cash Based Awards. Other stock or cash based awards are awards of cash, fully vested shares of our common stock and other awards valued wholly or partially by referring to, or otherwise based on, shares of our common stock or other property. Other stock or cash based awards may be granted to participants and may also be available as a payment form in the settlement of other awards, as standalone payments and as payment in lieu of compensation to which a participant is otherwise entitled. The plan administrator will determine the terms and conditions of other stock or cash based awards, which may include any purchase price, performance goal, transfer restrictions and vesting conditions.

Performance Criteria

The plan administrator may select performance criteria for an award to establish performance goals for a performance period. Performance criteria under the 2020 Plan may include, but are not limited to, the following: net earnings or losses (either before or after one or more of interest, taxes, depreciation, amortization, and non-cash equity-based compensation expense); gross or net sales or revenue or sales or revenue growth; net income (either before or after taxes) or adjusted net income; profits (including but not limited to gross profits, net profits, profit growth, net operation profit or economic profit), profit return ratios or operating margin; budget or operating earnings (either before or after taxes or before or after allocation of corporate overhead and bonus); cash flow (including operating cash flow and free cash flow or cash flow return on capital); return on assets; return on capital or invested capital; cost of capital; return on stockholders' equity; total stockholder return; return on sales; costs, reductions in costs and cost control measures; expenses; working capital; earnings or loss per share; adjusted earnings or loss per share; price per share or dividends per share (or appreciation in or maintenance of such price or dividends); regulatory achievements or compliance; implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; market share; economic value or economic value added models; division, group or corporate financial goals; customer satisfaction/growth; customer service; employee satisfaction; recruitment and maintenance of personnel; human resources management; supervision of litigation and other legal matters; strategic partnerships and transactions; financial ratios (including those measuring liquidity, activity, profitability or leverage); debt levels or reductions; sales-related goals; financing and other capital raising transactions; cash on hand; acquisition activity; investment sourcing activity; and marketing initiatives, any of which may be measured in absolute terms or as compared to any incremental increase or decrease. Such performance goals also may be based solely by reference to the company's performance or the performance of a subsidiary, division, business segment or business unit of the company or a subsidiary, or based upon performance relative to performance of other companies or upon comparisons of any of the indicators of performance relative to performance of other companies.

When determining performance goals, the plan administrator may provide for exclusion of the impact of an event or occurrence which the plan administrator determines should appropriately be excluded, including, without limitation, non-recurring charges or events, acquisitions or divestitures, changes in the corporate or capital structure, events unrelated to the business or outside of the control of management, foreign exchange considerations, and legal, regulatory, tax or accounting changes.

Certain Transactions

In connection with certain corporate transactions and events affecting our common stock, including a change in control, or change in any applicable laws or accounting principles, the plan administrator has broad discretion to take action under the 2020 Plan to prevent the dilution or enlargement of intended benefits, facilitate the transaction or event or give effect to the change in applicable laws or accounting principles. This includes canceling awards for cash or property, accelerating the vesting of awards, providing for the assumption or substitution of awards by a successor entity, adjusting the number and type of shares subject to outstanding awards and/or with respect to which awards may be granted under the 2020 Plan and replacing or terminating awards under the 2020 Plan. In addition, in the event of certain non-reciprocal transactions with our stockholders, the plan administrator will make equitable adjustments to awards outstanding under the 2020 Plan as it deems appropriate to reflect the transaction.

Provisions of the 2020 Plan Relating to Director Compensation.

The 2020 Plan provides that the plan administrator may establish compensation for non-employee directors from time to time subject to the 2020 Plan's limitations. Prior to commencing this offering, we intend to approve and implement a compensation program for our non-employee directors, which is described above under the heading "Director Compensation." Our board of directors or its authorized committee may modify the non-employee director compensation program from time to time in the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, provided that the sum of any cash compensation or other compensation and the grant date fair value of any equity awards granted under the 2020 Plan as compensation for services as a non-employee director during any fiscal year may not exceed $600,000, increased to $900,000 in 2020 or in the fiscal year of the non-employee director's initial service. The plan administrator may make exceptions to this limit for individual non-employee directors in extraordinary circumstances, as the plan administrator may determine in its discretion, subject to the limitations in the 2020 Plan.

Plan Amendment and Termination

Our board of directors may amend or terminate the 2020 Plan at any time; however, no amendment, other than an amendment that increases the number of shares available under the 2020 Plan, may materially and adversely affect an award outstanding under the 2020 Plan without the consent of the affected participant and stockholder approval will be obtained for any amendment to the extent necessary to comply with applicable laws. Further, the plan administrator may, without the approval of our stockholders, amend any outstanding stock option or SAR to reduce its price per share, other than in the context of corporate transactions or equity restructurings, as described above. The 2020 Plan will remain in effect until the tenth anniversary of its effective date, unless earlier terminated by our board of directors. No awards may be granted under the 2020 Plan after its termination.

Foreign Participants, Claw-Back Provisions, Transferability and Participant Payments

The plan administrator may modify awards granted to participants who are foreign nationals or employed outside the United States or establish subplans or procedures to address differences in laws, rules, regulations or customs of such foreign jurisdictions. All awards will be subject to any company claw-back policy as set forth in such claw-back policy or the applicable award agreement. Except as the plan administrator may

determine or provide in an award agreement, awards under the 2020 Plan are generally non-transferrable, except by will or the laws of descent and distribution, or, subject to the plan administrator's consent, pursuant to a domestic relations order, and are generally exercisable only by the participant. With regard to tax withholding obligations arising in connection with awards under the 2020 Plan and exercise price obligations arising in connection with the exercise of stock options under the 2020 Plan, the plan administrator may, in its discretion, accept cash, wire transfer or check, shares of our common stock that meet specified conditions, a promissory note, a "market sell order," such other consideration as the plan administrator deems suitable or any combination of the foregoing.

2020 Employee Stock Purchase Plan

Effective the day prior to the first public trading date of our common stock, we intend to adopt and ask our stockholders to approve the 2020 Employee Stock Purchase Plan, or the 2020 ESPP, the material terms of which are summarized below.

Shares Available for Awards; Administration

A total of 150,000 shares of our common stock will initially be reserved for issuance under the 2020 ESPP. In addition, the number of shares available for issuance under the 2020 ESPP will be annually increased on January 1 of each calendar year beginning in 2021 and ending in and including 2030, by an amount equal to the lesser of (A) 0.5% of the shares outstanding on the final day of the immediately preceding calendar year and (B) such smaller number of shares as is determined by our board of directors, provided that no more than 987,500 shares of our common stock may be issued under the 2020 ESPP. Our board of directors or a committee of our board of directors will administer and will have authority to interpret the terms of the 2020 ESPP and determine eligibility of participants. We expect that the compensation committee will be the initial administrator of the 2020 ESPP.

Eligibility

All of our employees are eligible to participate in the 2020 ESPP. However, an employee may not be granted rights to purchase stock under our 2020 ESPP if the employee, immediately after the grant, would own (directly or through attribution) stock possessing 5% or more of the total combined voting power or value of all classes of our stock.

Grant of Rights

The 2020 ESPP is intended to qualify under Section 423 of the Code and stock will be offered under the 2020 ESPP during offering periods. The length of the offering periods under the 2020 ESPP will be determined by the plan administrator and may be up to twenty-seven months long. Employee payroll deductions will be used to purchase shares on each purchase date during an offering period. The purchase dates for each offering period will be the final trading day in the offering period. Offering periods under the 2020 ESPP will commence when determined by the plan administrator. The plan administrator may, in its discretion, modify the terms of future offering periods.

The 2020 ESPP permits participants to purchase common stock through payroll deductions of up to a specified percentage of their eligible compensation. The plan administrator will establish a maximum number of shares that may be purchased by a participant during any offering period. In addition, no employee will be permitted to accrue the right to purchase stock under the 2020 ESPP at a rate in excess of $25,000 worth of shares during any calendar year during which such a purchase right is outstanding (based on the fair market value per share of our common stock as of the first day of the offering period).

On the first trading day of each offering period, each participant will automatically be granted an option to purchase shares of our common stock. The option will expire at the end of the applicable offering period, and

will be exercised at that time to the extent of the payroll deductions accumulated during the offering period. The purchase price of the shares, in the absence of a contrary designation, will be 85% of the lower of the fair market value of our common stock on the first trading day of the offering period or on the purchase date. Participants may voluntarily end their participation in the 2020 ESPP at any time during a specified period prior to the end of the applicable offering period, and will be paid their accrued payroll deductions that have not yet been used to purchase shares of common stock. Participation ends automatically upon a participant's termination of employment.

A participant may not transfer rights granted under the 2020 ESPP other than by will or the laws of descent and distribution, and are generally exercisable only by the participant.

Certain Transactions

In the event of certain non-reciprocal transactions or events affecting our common stock, the plan administrator will make equitable adjustments to the 2020 ESPP and outstanding rights. In the event of certain unusual or non-recurring events or transactions, including a change in control, the plan administrator may provide for (1) either the replacement of outstanding rights with other rights or property or termination of outstanding rights in exchange for cash, (2) the assumption or substitution of outstanding rights by the successor or survivor corporation or parent or subsidiary thereof, if any, (3) the adjustment in the number and type of shares of stock subject to outstanding rights, (4) the use of participants' accumulated payroll deductions to purchase stock on a new purchase date prior to the next scheduled purchase date and termination of any rights under ongoing offering periods or (5) the termination of all outstanding rights.

Plan Amendment

The plan administrator may amend, suspend or terminate the 2020 ESPP at any time. However, stockholder approval will be obtained for any amendment that increases the aggregate number or changes the type of shares that may be sold pursuant to rights under the 2020 ESPP, changes the corporations or classes of corporations whose employees are eligible to participate in the 2020 ESPP or changes the 2020 ESPP in any manner that would cause the 2020 ESPP to no longer be an employee stock purchase plan within the meaning of Section 423(b) of the Code.

2016 Plan

Our board of directors adopted our 2016 Plan in February 2016, and our stockholders approved our 2016 Plan in June 2016. Following the effectiveness of the 2020 Plan, we will cease granting additional awards under our 2016 Plan. However, our 2016 Plan will continue to govern the terms and conditions of the outstanding stock option awards previously granted thereunder.

Share Reserve. As of March 31, 2020, stock options covering 682,218 shares with a weighted-average exercise price of $3.70 per share and no shares of restricted stock were outstanding under our 2016 Plan, and 274,971 shares of our common stock remained available for the future grant of awards under our 2016 Plan. If an option granted under our 2016 Plan expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, canceled without having been fully exercised or forfeited, in each case after effectiveness of the 2020 Plan, any unused shares subject to the option will become available for issuance under our 2020 Plan.

Administration. Our board of directors or a committee delegated by our board of directors administers our 2016 Plan. Subject to the terms of our 2016 Plan, the administrator has the power to, among other things, determine who will be granted awards, to determine the terms and conditions of each award (including the number of shares, exercise price, if any, and any vesting conditions), to accelerate the time(s) when an award may vest or be exercised and to construe and interpret the terms of our 2016 Plan and awards granted thereunder.

Options and Restricted Stock. Options and restricted stock granted under our 2016 Plan may be granted subject to terms and conditions generally similar to those described above with respect to options and restricted stock that may be granted under our 2020 Plan.

Changes to Capital Structure. In the event of any dividend or other distribution, reorganization, merger, consolidation, combination, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of assets of the Company, or sale or exchange of our common stock or other securities of the Company, issuance of warrants or other rights to purchase our common stock or other securities of the Company, or other similar corporate transaction or event affecting our shares, the plan administrator may adjust the number and kind of shares that may be delivered under the 2016 Plan, the number, kind and price of shares covered by each outstanding award and/or the terms and conditions of any outstanding award (including any performance "targets") in order to prevent to prevent dilution or enlargement of the benefits or potential benefits intended by the Company under the 2016 Plan.

Additionally, in the event of any of the transactions described above or any other unusual or nonrecurring transaction or event , affecting the Company or the financial statements or financial condition of the Company, or any change in any applicable laws or accounting principles, the plan administrator is authorized to take any one or more of the following actions whenever the plan administrator determines that such action is appropriate in order to (x) prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the 2016 Plan or with respect to any award granted or issued under the 2016 Plan, (y) to facilitate such transaction or event or (z) give effect to such changes in applicable laws or accounting principles:

- To provide for the cancellation of awards in exchange for either an amount of cash or other property with a value equal to the amount that could have been obtained upon the exercise or settlement of the vested portion of such award;
- To provide that awards shall vest and be fully exercisable;
- To make adjustments in the number and type of shares subject to outstanding awards, and/or in the terms and conditions of (including, without limitation, the grant or exercise price), and the criteria included in, outstanding awards;
- To provide that awards be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof;
- To replace awards with other rights or property selected by the plan administrator; and/or
- To provide that awards will terminate and cannot vest, be exercised or become payable after the applicable event.

Plan Amendment or Termination. Our board of directors may amend, alter, suspend or terminate our 2016 Plan at any time, subject to stockholder approval to the extent required by applicable law. No amendment to our 2016 Plan may materially and adversely affect any outstanding award outstanding without the consent of the affected award holder. As discussed above, we will terminate our 2016 Plan prior to the closing of this offering and no new awards will be granted thereunder following such termination.

2005 Plan

Our board of directors adopted our 2005 Equity Incentive Plan which we refer to as the 2005 Plan, and our stockholders approved our 2005 Plan in November 2005. No additional awards under our 2005 Plan can be

made. However, our 2005 Plan continues to govern the terms and conditions of the outstanding awards previously granted thereunder, which include options.

Share Reserve. As of March 31, 2020, stock options covering 219,460 shares with a weighted-average exercise price of $16.60 per share were outstanding under our 2005 Plan.

Administration. Our board of directors or a committee delegated by our board of directors administers our 2005 Plan. Subject to the terms of our 2005 Plan, the administrator has the power to, among other things, determine who will be granted awards, to determine the terms and conditions of each awards, to accelerate the time(s) when an award may vest or be exercised and to construe and interpret the terms of our 2005 Plan and awards granted thereunder.

Options. Options granted under our 2005 Plan are subject to terms and conditions generally similar to those described above with respect to options that may be granted under our 2020 Plan.

Changes to Capital Structure. In the event of stock dividend, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, exchange of shares or other transaction affects the common stock such that an adjustment is required in order to preserve the benefits intended to be provided by the 2005 Plan, the plan administrator shall adjust the number, kind and price of shares covered by each outstanding award.

Change in Control. In order to preserve a holder's rights under an award in the event of a change in control (as defined by the plan administrator), the plan administrator in its discretion may take one or more of the following actions: (i) provide for the acceleration of any time period relating to the exercise or payment of the award, (ii) provide for payment to the holder of cash or other property equal to the amount that would have been received upon the exercise or payment of the award had the award been exercised or paid upon the change in control, (iii) adjust the terms of the award in a manner determined by the plan administrator to reflect the change in control, (iv) cause the award to be assumed, or new rights substituted therefor, by another entity, or (v) make such other provision as the plan administrator may consider equitable to award holders and in the best interests of the Company.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following includes a summary of transactions since January 1, 2017 to which we have been a party in which the amount involved exceeded or will exceed $120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under "Executive and Director Compensation." We also describe below certain other transactions with our directors, executive officers and stockholders.

Promissory Notes

On March 14, 2018, we issued $0.5 million in aggregate principal amount of convertible promissory notes to various investors pursuant to a convertible note purchase agreement. Certain of our officers and/or directors, including Carmichael Roberts, Terrance McGuire, Dennis Dougherty and Guido Neels participated in the convertible notes financing either personally or through affiliated trusts or funds. Certain holders of 5% or more of our common stock, on an as-converted basis, including entities affiliated with Polaris Venture Partners, entities affiliated with North Bridge Venture Partners and Intersouth Partners VII, L.P., participated in the convertible notes financing.

Preferred Stock Financings

Series B Preferred Stock Financing. On June 5, 2018, we issued and sold to investors 41,685,292 shares of our Series B preferred stock at a price per share of $0.30, for aggregate consideration of approximately $12.5 million, consisting of approximately $12.0 million in cash proceeds plus the conversion of certain convertible notes in an aggregate amount of approximately $0.5 million. On July 30, 2018, we issued and sold to investors an additional 16,666,667 shares of our Series B preferred stock for aggregate consideration of approximately $5.0 million. On September 14, 2018, we issued and sold to investors an additional 11,666,666 shares of our Series B preferred stock for aggregate consideration of approximately $3.5 million. On October 12, 2018, we issued and sold to investors an additional 28,333,328 shares of our Series B preferred stock for aggregate consideration of approximately $8.5 million. Certain of our officers and/or directors, including Michael Altman, Carmichael Roberts, Terrance McGuire, Dennis Dougherty and Guido Neels participated in the Series B preferred stock financing either personally or through affiliated trusts or funds. Certain holders of 5% or more of our common stock, on an as-converted basis, including entities affiliated with Polaris Venture Partners, entities affiliated with North Bridge Venture Partners, Intersouth Partners VII, L.P., Perceptive Life Sciences Master Fund, Ltd., RA Capital Healthcare Fund, L.P., entities affiliated with ArrowMark Partners and Soleus Private Equity Fund I, L.P., participated in the Series B preferred stock financing.

Series C Preferred Stock Financing. At various closings between January 10, 2020 and January 31, 2020, we issued and sold to investors an aggregate of 78,306,611 shares of our Series C preferred stock at a price per share of $0.38811, for aggregate consideration of approximately $30.4 million. We also issued to such investors warrants to purchase up to an aggregate of 681,256 shares of common stock, at an exercise price per share equal to the fair market value of our common stock following January 10, 2020 (as determined by our board of directors, in good faith, based on the most recent independent third party valuation of our company available following January 10, 2020 performed pursuant to Section 409A of the Internal Revenue Code, and taking into account any changes to our business between the date of such third party valuation and January 10, 2020). In accordance with such terms, on February 6, 2020, our board of directors determined such fair market value of our common stock to be $8.63 per share. Certain holders of 5% or more of our common stock, on an as-converted basis, including entities affiliated with Polaris Venture Partners, entities affiliated with North Bridge Venture Partners, Intersouth Partners VII, L.P., entities affiliated with Perceptive Advisors, LLC, RA Capital Healthcare Fund, L.P., entities affiliated with ArrowMark Partners and Soleus Private Equity Fund I, L.P., participated in the Series C preferred stock financing, including the issuance of the warrants to purchase common stock.

The following table sets forth the aggregate number of shares of our capital stock acquired by beneficial owners of more than 5% of our common stock, on an as-converted basis, in the financing transactions described above. Each share of our Series B preferred stock and Series C preferred stock identified in the following table will convert into 0.0289998 shares of common stock immediately prior to the closing of this offering.

Participants	Series B Preferred Stock	Series C Preferred Stock	Warrants to Purchase Common Stock
5% or Greater Stockholders(1)			
Entities affiliated with Polaris Venture Partners(2)	6,651,630	2,061,271	17,932
Intersouth Partners VII, L.P.	3,300,414	1,030,635	8,966
Entities affiliated with North Bridge Venture Partners(3)	6,651,629	5,153,178	44,831
Entities affiliated with Perceptive Advisors, LLC(4)	26,666,666	55,267,836	480,825
RA Capital Healthcare Fund, L.P.	26,666,666	1,288,294	11,208
Entities Affiliated with ArrowMark Partners(5)	16,666,667	3,864,883	33,624
Soleus Private Equity Fund I, L.P.	11,666,666	3,607,224	31,382

(1) Additional details regarding these stockholders and their equity holdings are provided in this prospectus under the caption “Principal Stockholders.”

(2) Represents securities acquired by (i) Polaris Venture Partners Entrepreneurs’ Fund V, L.P., (ii) Polaris Venture Partners V, L.P., (iii) Polaris Venture Partners Founders’ Fund V, L.P. and (iv) Polaris Venture Partners Special Founders’ Fund V, L.P.

(3) Represents securities acquired by (i) North Bridge Venture Partners V-A, L.P., (ii) North Bridge Venture Partners V-B, L.P. and (iii) North Bridge Venture Partners VI, L.P.

(4) Represents securities acquired by (i) Perceptive Life Sciences Master Fund, Ltd. and (ii) Perceptive LS (A), LLC.

(5) Represents securities acquired by (i) ArrowMark Fundamental Opportunity Fund, L.P. and (ii) Meridian Small Cap Growth Fund.

Some of our directors are associated with our principal stockholders as indicated in the table below:

Director	Principal Stockholder
Michael Altman	Entities affiliated with Perceptive Advisors, LLC
Edward Anderson	Entities affiliated with North Bridge Venture Partners
Robert S. Langer Sc.D.	Entities affiliated with Polaris Venture Partners
Konstantin Poukalov	Entities affiliated with Perceptive Advisors, LLC

Agreements with Arsenal

In 2011, we entered into a Collaboration Agreement, a Technology License Agreement, a Trademark Coexistence Agreement and a Transition Services Agreement with Arsenal Medical, Inc., or Arsenal, a company in which certain of our principal stockholders are stockholders. During the year ended December 31, 2017 and 2018, we invoiced Arsenal for an aggregate of approximately $2.1 million and $1.2 million, respectively, for various costs and other obligations under these agreements. In October 2018, we entered an Acknowledgment and Release Agreement with Arsenal with respect to the expiration of the Collaboration Agreement and certain other intellectual property matters. In November 2019, we entered into an amendment to the Acknowledgement and Release Agreement, which clarifies our and Arsenal’s rights to each of our and Arsenal’s respective patents and patent applications, including patents and patent applications existing as of the effective date of the Collaboration Agreement, the Technology License Agreement, the Trademark Coexistence Agreement and the

Transition Services Agreement. The amendment to the Acknowledgment and Release Agreement also provides for a mutual release of all claims arising under such patents and patent applications. The Technology License Agreement is a non-exclusive in-license agreement covering certain intellectual property regarding in situ forming foam and nanofiber, which is unrelated to our current and future expected product candidates. The Technology License Agreement provides for no future payments by us and remains in effect. In addition, the Trademark Coexistence Agreement relates to certain trademarks around our previous corporate name, which we no longer use. Finally, the Transition Services Agreement expired in June 2019.

Consulting Agreement with George Whitesides, Ph.D.

In October 2005, we entered into a consulting agreement with George Whitesides, Ph.D., who is one of our directors, which agreement was subsequently amended in March 2006, February 2012, January 2015 and January 2017, pursuant to which agreement Dr. Whitesides agreed to provide us certain consulting and advisory services. Pursuant to the terms of the agreement, the agreement expired on January 1, 2019. In lieu of all compensation payable by us under the agreement, we have agreed to grant to Dr. Whitesides an award of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share (which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering) under our 2020 Plan, subject to certain customary conditions.

Investor Rights Agreement

We entered into an Eighth Amended and Restated Investor Rights Agreement in January 2020 with the holders of our preferred stock, including entities with which certain of our directors are related. The agreement provides for certain rights relating to the registration of such holders' common stock, including shares issuable upon conversion of preferred stock, and a right of first refusal to purchase future securities sold by us. See "Description of Capital Stock—Registration Rights" for additional information.

Voting Agreement

We entered into a Ninth Amended and Restated Stockholders' Voting Agreement by and among us and certain of our stockholders, pursuant to which the following directors were elected to serve as members on our board of directors and, as of the date of this prospectus, continue to so serve: Maria Palasis, Ph.D., Michael Altman, Edward Anderson, Robert S. Langer and Konstantin Poukalov. Ms. Palasis was selected to serve on our board of directors in her capacity as our chief executive officer. Messrs. Altman, Anderson Langer and Poukalov were selected to serve on our board of directors as representatives of holders of our preferred stock. Messrs. Altman and Poukalov were designated by entities affiliated with Perceptive Advisors, LLC. Messrs. Anderson and Langer were designated by entities affiliated with North Bridge Venture Partners and entities affiliated with Polaris Venture Partners, respectively.

The voting agreement will terminate upon the closing of this offering, and members previously elected to our board of directors pursuant to this agreement will continue to serve as directors until they resign, are removed or their successors are duly elected by the holders of our common stock. The composition of our board of directors after this offering is described in more detail under "Management—Board Composition and Election of Directors."

Employment Agreements

We have entered into employment agreements with our named executive officers. For more information regarding the agreements with our named executive officers, see "Executive and Director Compensation—Executive Compensation Arrangements."

Indemnification Agreements

We intend to enter into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, 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.

Stock Option Grants to Executive Officers and Directors

We have granted stock options to our executive officers and certain of our directors as more fully described in the section entitled "Executive and Director Compensation."

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock, as of March 31, 2020 by:

- each person or group of affiliated persons known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our current executive officers and directors as a group.

The number of shares beneficially owned by each stockholder is determined under rules issued by the Securities and Exchange Commission. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. Applicable percentage ownership before this offering is based on 8,566,108 shares of common stock outstanding as of March 31, 2020, assuming the conversion of all outstanding shares of preferred stock into common stock. Applicable percentage ownership after this offering is based on 8,566,108 shares of common stock outstanding as of March 31, 2020, assuming the conversion of all outstanding shares of preferred stock into common stock, and, subject to the following sentence, further gives effect to the automatic cashless exercise of outstanding warrants to purchase shares of common stock upon the closing of this offering. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, the maximum number of shares of common stock subject to options, warrants or other rights held by such person that are currently exercisable or will become exercisable within 60 days of March 31, 2020 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person. Unless noted otherwise, the address of all listed stockholders is 480 Arsenal Way, Watertown, MA 02472. Each of the stockholders listed has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

The following table does not reflect any potential purchases by our executive officers, directors, their affiliated entities or holders of more than 5% of our common stock in this offering or any equity awards granted to our executive officers or directors contingent on this offering. If any shares are purchased by and to the extent any such equity awards have been granted to these persons or entities, the number and percentage of shares of our common stock beneficially owned by them after this offering will differ from the amounts set forth in the following table.

Name of Beneficial Owner	Shares of Common Stock Beneficially Owned	Percentage of Common Stock Beneficially Before this Offering	Percentage of Common Stock Beneficially After this Offering
5% or Greater Stockholders			
Entities Affiliated with Perceptive Advisors, LLC(1)	2,856,907	32.4%	22.9%
Entities Affiliated with North Bridge Venture Partners(2)	1,487,516	17.3%	12.0%
Entities Affiliated with Polaris Venture Partners(3)	1,370,946	16.0%	11.1%
RA Capital Healthcare Fund, L.P.(4)	821,895	9.6%	6.7%
Intersouth Partners VII, L.P.(5)	680,540	7.9%	5.5%
Entities Affiliated with ArrowMark Partners(6)	629,032	7.3%	5.1%
Soleus Private Equity Fund I, L.P.(7)	474,320	5.5%	3.8%
Named Executive Officers and Directors			
Maria Palasis, Ph.D.(8)	222,583	2.5%	1.8%
R. Don Elsey	—	—	—
Laura Edgerly-Pflug	—	—	—
Edward Anderson(2)	1,487,516	17.3%	12.0%
Michael Altman(1)	—	—	—
Robert S. Langer Sc.D.(3)(9)	105,475	1.2%	*
C. Ann Merrifield(10)	3,050	*	*
George Whitesides, Ph.D.(11)	116,122	1.3%	*
W. Bradford Smith(12)	2,215	*	*
Konstantin Poukalov(1)	—	—	—
All current executive officers and directors as a group (11 persons)	1,959,207	21.7%	15.3%

* Less than 1%.

(1) Consists of (A)(i) 1,244,066 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Perceptive Life Sciences Master Fund, Ltd. (“Perceptive Life”) and (ii) 141,221 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by Perceptive Life and (B)(ii) 1,132,016 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Perceptive LS (A), LLC (“Perceptive LS”) and (ii) 339,604 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by Perceptive LS. Perceptive Advisors, LLC serves as the investment advisor to Perceptive Life. Perceptive LS GP, LLC is the manager of Perceptive LS. Joseph Edelman is the managing member of Perceptive Advisors, LLC and the sole member of Perceptive LS GP, LLC. Michael Altman and Konstantin Poukalov, two of our directors, are Managing Directors at Perceptive Advisors, LLC. The address of Perceptive Life and Perceptive LS is c/o Perceptive Advisors, LLC, 51 Astor Place, 10th Floor, New York, New York 10003.

(2) Consists of (A)(i) 651,453 shares of common stock issuable upon conversion of shares of convertible preferred stock held by North Bridge Venture Partners V-A, L.P. (“NBVP V-A”) and (ii) 21,060 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by NBVP V-A, (B)(i) 319,303 shares of common stock issuable upon conversion of shares of convertible preferred stock held by North Bridge Venture Partners V-B, L.P. (“NBVP V-B”) and (ii) 10,322 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by NBVP V-B and (C)(i) 471,929 shares of common stock issuable upon conversion of shares of convertible preferred stock held by North Bridge Venture Partners VI, L.P. (“NBVP VI”) and (ii) 13,449 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by NBVP VI. North Bridge Venture Management V, L.P. (“NBVM V”), is the sole General Partner of NBVP

V-A and NBVP V-B. NBVM GP, LLC, the General Partner of NBVM V, has ultimate voting and dispositive power over the shares held of record by NBVP VA and NBVP V-B. Shared voting and dispositive power of such shares are vested in Edward T. Anderson and Richard A. D'Amore. North Bridge Venture Management VI, L.P. ("NBVM VI"), is the sole General Partner of NBVP VI. NBVM GP, LLC, the General Partner of NBVM VI, has ultimate voting and dispositive power over the shares held of record by NBVP VI. Shared voting and dispositive power of such shares are vested in Edward T. Anderson and Richard A. D'Amore. Mr. Anderson, a member of our board of directors and a manager of NBVM GP, LLC, disclaims beneficial ownership over such shares, except to the extent of his pecuniary interest therein. The address of all entities affiliated with North Bridge Venture Partners is 60 William Street, Suite 350, Wellesley, MA 02481.

(3) Consists of (A)(i) 316,980 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Polaris Venture Partners IV, L.P. ("PVP IV"); (B)(i) 5,940 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Polaris Venture Partners Entrepreneurs' Fund IV, L.P. ("PVPEF IV" and, together with PVP IV, the "Polaris IV Funds"); (C)(i) 993,981 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Polaris Venture Partners V, L.P. ("PVP V") and (ii) 17,304 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by PVP V; (D)(i) 19,370 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Polaris Venture Partners Entrepreneurs' Fund V, L.P. ("PVPEF V") and (ii) 337 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by PVPEF V; (E)(i) 6,807 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Polaris Venture Partners Founders' Fund V, L.P. ("PVPFF V") and (ii) 118 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by PVPFF V; and (F)(i) 9,936 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Polaris Venture Partners Special Founders' Fund V, L.P. ("PVPSFF V," and together with PVP V, PVPEF V and PVPFF V, the "Polaris V Funds" and the Polaris V Funds, together with the Polaris IV Funds, the "Polaris Funds") and (ii) 173 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by PVPSFF V. Polaris Venture Management Co., IV, L.L.C. ("PVM IV") is the sole general partner of each of the Polaris IV Funds and may be deemed to have sole voting and dispositive power with respect to the shares held by each of the Polaris IV Funds. Polaris Venture Management Co. V, L.L.C. ("PVM V") is the sole general partner of each of the Polaris V Funds and may be deemed to have sole voting and dispositive power with respect to the shares held by each of the Polaris V Funds. Jonathan A. Flint and Terrance G. McGuire are the managing members of each of PVM V and PVM IV. Each of Messrs. Flint and McGuire, as managing members of each of PVM V and PVM IV, may be deemed to have shared voting and dispositive power with respect to the shares held by each of the Polaris Funds. Each of PVM IV, PVM V and Messrs. Flint and McGuire expressly disclaim beneficial ownership of the shares held by the each of the Polaris Funds, except to the extent of their respective pecuniary interests therein, if any. The mailing address of the individuals and entities listed above is One Marina Park Drive, 10th Floor, Boston, MA 02210.

(4) Consists of (i) 810,687 shares of common stock issuable upon conversion of shares of convertible preferred stock held by RA Capital Healthcare Fund, L.P. ("RA Capital") and (ii) 11,208 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by RA Capital. RA Capital Management, L.P., is the investment advisor ("Adviser") of RA Capital and RA Capital Management GP, LLC ("Adviser GP") is the general partner of the Adviser. Dr. Kolchinsky and Rajeev Shah are the controlling persons of the Adviser GP. The Adviser, Dr. Kolchinsky, and Mr. Shah may be deemed to beneficially own the shares held by RA Capital. The address of RA Capital is c/o RA Capital Management, L.P., 200 Berkeley Street, 18th Floor, Boston, Massachusetts 02116.

(5) Consists of (i) 671,574 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Intersouth Partners VII, L.P. ("ISP VII") and (ii) 8,966 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by ISPVII. All securities held by ISPVII are indirectly held by Intersouth Associates VII, LLC ("ISA VII"), as general partner of ISP VII, and each of the individual managing members of ISA VII. The individual managing members of ISA VI and ISA VII are Mitch Mumma and Dennis Dougherty. Member Managers may share voting and dispositive power over the shares directly held by such entities. The mailing address of the individuals and entities listed above is 4711 Hope Valley Road, Suite 4F-632, Durham NC 27707.

(6) Consists of (A)(i) 461,383 shares of common stock issuable upon conversion of shares of convertible preferred stock held by Meridian Small Cap Growth Fund ("Meridian") and (ii) 22,416 shares of common stock issuable

upon exercise of warrants to purchase shares of common stock held by Meridian and (B)(i) 134,025 shares of common stock issuable upon conversion of shares of convertible preferred stock held by ArrowMark Fundamental Opportunity Fund, L.P. ("ArrowMark" and, together with Meridian, the "ArrowMark Funds") and (ii) 11,208 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by ArrowMark. ArrowMark Partners GP, LLC ("ArrowMark GP") is the general partner of ArrowMark and David Corkins is the managing member of ArrowMark GP. ArrowMark Colorado Holdings LLC ("ArrowMark Colorado") is investment advisor to ArrowMark Funds. Mr. Corkins is a managing member of ArrowMark Colorado and Chad Meade and Brian Schaub are portfolio managers of ArrowMark Colorado. ArrowMark Colorado may be considered the beneficial owner of the shares held by the ArrowMark Funds. The address of the ArrowMark Funds is 100 Fillmore Street, Suite 325, Denver, Colorado 80206.

(7) Consists of (i) 442,938 shares held by Soleus Private Equity Fund I, L.P. ("Soleus PE") and (ii) 31,382 shares of common stock issuable upon exercise of warrants to purchase shares of common stock held by Soleus PE. Soleus Private Equity GP I, LLC ("Soleus GP") is the general partner of Soleus PE. Soleus GP holds voting and dispositive power over the shares held by Soleus PE. The address of Soleus PE is 104 Field Point Road, Second Floor, Greenwich CT 06830.

(8) Consists of options to purchase 222,583 shares of common stock that are or will be immediately exercisable within 60 days of March 31, 2020.

(9) Includes (i) 14,499 shares of common stock, (ii) 668 shares of common stock issuable upon the conversion of preferred stock and (iii) options to purchase 90,308 shares of common stock that are or will be immediately exercisable within 60 days of March 31, 2020.

(10) Consists of options to purchase 3,050 shares of common stock that are or will be immediately exercisable within 60 days of March 31, 2020.

(11) Includes (i) 28,999 shares of common stock, (ii) 6,404 shares of common stock issuable upon conversion of preferred stock and (iii) options to purchase 80,719 shares of common stock that are or will be immediately exercisable within 60 days of March 31, 2020, but does not include an award in lieu of other compensation of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering.

(12) Consists of options to purchase 2,215 shares of common stock that are or will be immediately exercisable within 60 days of March 31, 2020.

DESCRIPTION OF CAPITAL STOCK

General

The following description summarizes some of the terms of our amended and restated certificate of incorporation and amended and restated bylaws that will become effective upon the closing of this offering, of the Eighth Amended and Restated Investor Rights Agreement, dated January 10, 2020, or investor rights agreement, and of the General Corporation Law of the State of Delaware. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and investor rights agreement, copies of which have been or will be filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the General Corporation Law of the State of Delaware. The description of our common stock and preferred stock reflects changes to our capital structure that will occur immediately prior the closing of this offering.

Following the closing of this offering, our authorized capital stock will consist of 200,000,000 shares of common stock, par value $0.001 per share, and 10,000,000 shares of preferred stock, par value $0.001 per share.

As of March 31, 2020, there were 230,860 shares of our common stock outstanding and 8,335,248 shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock in connection with this offering, held of record by 82 stockholders.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Subject to the supermajority votes for some matters, other matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter. Our amended and restated certificate of incorporation and amended and restated bylaws also provide that our directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon. In addition, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon is required to amend or repeal, or to adopt any provision inconsistent with, several of the provisions of our amended and restated certificate of incorporation. See below under "—Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws—Amendment of Charter Provisions." Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of any series of preferred stock that we may designate and issue in the future.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are, and the shares offered by us in this offering will be, when issued and paid for, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

Under the terms of our amended and restated certificate of incorporation that will become effective upon the closing of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in

one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

Options

As of March 31, 2020, options to purchase 219,460 shares of common stock were outstanding under our 2005 Plan (all of which were vested and exercisable as of such date) and options to purchase 682,218 shares of common stock were outstanding under our 2016 Plan (of which 219,373 shares were vested and exercisable as of such date). Additionally, 494,716 shares of common stock issuable upon the exercise of options will be granted in connection with this offering under our 2020 Plan, which will become effective in connection with this offering, to certain of our directors, executive officers and employees, at an exercise price per share equal to the initial public offering price in this offering.

Warrants

As of March 31, 2020, warrants to purchase an aggregate total of 681,256 shares of our common stock were outstanding. Pursuant to the terms thereof, these warrants were to have an exercise price per share equal to the fair market value of our common stock following January 10, 2020 (as determined by our board of directors, in good faith, based on the most recent independent third party valuation of our company available following January 10, 2020 performed pursuant to Section 409A of the Internal Revenue Code, and taking into account any changes to our business between the date of such third party valuation and January 10, 2020). In accordance with such terms, on February 6, 2020, our board of directors determined such fair market value of our common stock to be $8.63 per share.

These warrants are exercisable immediately and expire on the earlier to occur of January 10, 2030, immediately prior to the closing of an initial public offering of shares of our common stock and the close of certain other liquidation transactions. Unless earlier exercised, these warrants will be automatically exercised, on a cashless basis, immediately prior to, and contingent upon, the closing of this offering, so long as the initial public offering price of our common stock exceeds the exercise price of the warrants. In the event the initial public offering price of our common stock would be less than the exercise price of the warrants, then the warrants will expire immediately prior to the closing of this offering. Based on an assumed initial public offering price of $15,00 per share, the midpoint of the price range set forth on the cover of this prospectus, the warrants would be exercised, on a cashless basis, for 289,298 shares of common stock immediately prior to the closing of this offering. A $1.00 increase or decrease in the assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would, in case of an increase, increase the number of shares of common stock issuable by 24,496 shares and, in case of a decrease, decrease the number of shares of common stock issuable by 27,992 shares, upon the automatic exercise, on a cashless basis, of the warrants.

Registration Rights

Holders of 8,741,991 shares of our common stock are entitled to certain rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to an amended and restated

investor rights agreement by and among us and certain of our stockholders, until the rights otherwise terminate pursuant to the terms of the investor rights agreement. The registration of shares of common stock as a result of the following rights being exercised would enable holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective.

Form S-1 Registration Rights

If at any time after the earlier of (i) January 10, 2025 or (ii) the date that is six months after the closing date of this offering, the holders of at least 30% of the registrable securities then outstanding request in writing that we effect a registration with respect to all or part of such registrable securities then outstanding having an anticipated aggregate offering price that would exceed $5,000,000, we may be required to register their shares. We are obligated to effect at most two registrations in response to these demand registration rights. If the holders requesting registration intend to distribute their shares by means of an underwriting, the managing underwriter of such offering will have the right to limit the numbers of shares to be underwritten for reasons related to the marketing of the shares.

Piggyback Registration Rights

If at any time after this offering, we propose to register any shares of our common stock under the Securities Act, subject to certain exceptions, the holders of registrable securities then outstanding will be entitled to notice of the registration and to include their shares of registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

Form S-3 Registration Rights

If, at any time after we become entitled under the Securities Act to register our shares on a registration statement on Form S-3, the holders of the registrable securities then outstanding request in writing that we effect a registration with respect to all or part of such registrable securities having an anticipated aggregate offering price to the public in the offering of at least $2,000,000, we will be required to effect such registration; provided, however, that we will not be required to effect such a registration if, within any twelve month period, we have already effected two registrations on Form S-3 for the holders of registrable securities.

Expenses and Indemnification

Ordinarily, other than underwriting discounts and commissions, we will be required to pay all expenses incurred by us related to any registration effected pursuant to the exercise of these registration rights. These expenses may include all registration and filing fees, printing expenses, fees and disbursements of our counsel, reasonable fees and disbursements of a counsel for the selling securityholders and blue sky fees and expenses. Additionally, we have agreed to indemnify selling stockholders for damages, and any legal or other expenses reasonably incurred, arising from or based upon any untrue statement of a material fact contained in any registration statement, an omission or alleged omission to state a material fact in any registration statement or necessary to make the statements therein not misleading, or any violation or alleged violation by the indemnifying party of securities laws, subject to certain exceptions.

Termination of Registration Rights

The registration rights terminate upon the earlier of the date that is five years after the closing of this offering, the date on which no stockholder holds any registrable securities, the closing of a company sale, as defined in the investor rights agreement, or at such time as SEC Rule 144 or another similar exemption under the Securities Act is available for the sale of all of a stockholder’s shares without limitation during a three-month period without registration.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Some provisions of Delaware law, our restated certificate of incorporation and our restated bylaws could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Undesignated Preferred Stock

The ability of our board of directors, without action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

Stockholder Meetings

Our restated bylaws provide that a special meeting of stockholders may be called only by our chairman of the board, chief executive officer or president (in the absence of a chief executive officer), or by a resolution adopted by a majority of our board of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Elimination of Stockholder Action by Written Consent

Our restated certificate of incorporation eliminates the right of stockholders to act by written consent without a meeting.

Staggered Board

Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders. For more information on the classified board, see “Management—Board Composition and Election of Directors.” This system of electing and removing directors may tend to discourage a third-party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Removal of Directors

Our restated certificate of incorporation provides that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of the holders of at least two-thirds in voting power of the outstanding shares of stock entitled to vote in the election of directors.

Stockholders Not Entitled to Cumulative Voting

Our restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

Delaware Anti-Takeover Statute

We are subject to Section 203 of the General Corporation Law of the State of Delaware, which prohibits persons deemed to be "interested stockholders" from engaging in a "business combination" with a publicly held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors.

Choice of Forum

Our restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative form, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees or agents to us or our stockholders; (3) any action asserting a claim against us arising pursuant to any provision of the General Corporation Law of the State of Delaware or our certificate of incorporation or bylaws; (4) any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws; or (5) any action asserting a claim governed by the internal affairs doctrine. Under our amended and restated certificate of incorporation, this exclusive forum provision will not apply to claims which are vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery of the State of Delaware, or for which the Court of Chancery of the State of Delaware does not have subject matter jurisdiction. For instance, the provision would not apply to actions arising under federal securities laws, including suits brought to enforce any liability or duty created by the Securities Act, Exchange Act, or the rules and regulations thereunder. Our restated certificate of incorporation further provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Our restated certificate of incorporation also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to these choice of forum provisions. It is possible that a court of law could rule that either or both of the choice of forum provisions contained in our restated certificate of incorporation is inapplicable or unenforceable if it is challenged in a proceeding or otherwise.

Amendment of Charter Provisions

The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock and the provision prohibiting cumulative voting, would require approval by holders of at least two-thirds in voting power of the outstanding shares of stock entitled to vote thereon.

The provisions of Delaware law, our restated certificate of incorporation and our restated bylaws 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 the composition of our board and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be American Stock Transfer & Trust Company, LLC.

Stock Exchange Listing

We have applied to have our common stock listed on The Nasdaq Global Market under the symbol “LYRA.”

SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there was no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock.

Upon the closing of this offering, we will have outstanding an aggregate of 12,376,378 shares of common stock, assuming the issuance of 3,500,000 shares of common stock offered by us in this offering, the automatic conversion of all outstanding shares of our preferred stock into 8,335,248 shares of our common stock, the issuance to George Whitesides, Ph.D., one of our directors, in lieu of compensation payable by us under a consulting agreement, of such number of fully vested shares of common stock equal to $314,580 divided by the initial public offering price per share, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 20,972 shares of our common stock upon the closing of this offering, the automatic cashless exercise of outstanding warrants to purchase shares of common stock, which, based on an assumed initial public offering price of $15.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would result in the issuance of 289,298 shares of our common stock upon the closing of this offering and no exercise of options after March 31, 2020. Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

Upon the closing of this offering, 8,855,406 shares of common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below. We expect that substantially all of these shares will be subject to the 180-day lock-up period under the lock-up agreements described below. Upon expiration of the lock-up period, we estimate that approximately 8,855,406 shares will be available for sale in the public market, subject in some cases to applicable volume limitations under Rule 144.

In addition, of the 901,678 shares of our common stock that were subject to stock options outstanding as of March 31, 2020, options to purchase 438,833 shares of common stock were vested as of March 31, 2020 and, upon exercise, these shares will be eligible for sale subject to the lock–up agreements described below and Rules 144 and 701 under the Securities Act.

Lock-Up Agreements

We and each of our directors and executive officers and holders of substantially all of our outstanding capital stock, have agreed that, without the prior written consent of BofA Securities, Inc. and Jefferies LLC, we and they will not, subject to certain exceptions, during the period ending 180 days after the date of this prospectus, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for common stock; or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock, whether any transaction described above is to be settled by delivery of our common stock or such other securities, in cash or otherwise.

Upon the expiration of the applicable lock-up periods, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above. For a further description of these lock-up agreements, please see "Underwriting."

Rule 144

Affiliate Resales of Restricted Securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell in "broker's transactions" or certain "riskless principal transactions" or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 123,763 shares immediately after this offering; or
- the average weekly trading volume in our common stock on The Nasdaq Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Affiliate resales under Rule 144 are also subject 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 in excess of $50,000, the seller must file a notice on Form 144 with the Securities and Exchange Commission and Nasdaq concurrently with either the placing of a sale order with the broker or the execution directly with a market maker.

Non-Affiliate Resales of Restricted Securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate 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 but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

Rule 701

In general, under Rule 701, any of an issuer's employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

The Securities and Exchange Commission has indicated that Rule 701 will apply to typical 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.

Equity Plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our

stock plans. We expect to file the registration statement covering shares offered pursuant to our stock plans shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market, subject to compliance with the resale provisions of Rule 144.

Registration Rights

Upon the closing of this offering, the holders of 8,741,991 shares of common stock, which includes all of the shares of common stock issuable upon the automatic conversion of our preferred stock upon the closing of this offering, or their transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See “Description of Capital Stock—Registration Rights” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement described above.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES 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 U.S. Internal Revenue Code of 1986, as amended, or 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). 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 certain 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 for whom our common stock constitutes "qualified small business stock" within the meaning of Section 1202 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 or arrangement 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 INFORMATIONAL 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." Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of the withholding rules discussed below we or the applicable withholding agent may treat the entire distribution as a dividend.

Subject to the discussion below on effectively connected income, 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.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

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 gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- 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 generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second 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 third 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 are encouraged to consult their tax advisors regarding the possible consequences to them if we are, or were to become, a USRPHC.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

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, W-8BEN-E or W-8ECI, 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 (subject to the proposed Treasury Regulations discussed below) 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. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of stock on or after January 1, 2019, recently proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of these withholding rules we or the applicable withholding agent may treat the entire distribution as a dividend. Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.

UNDERWRITING

BofA Securities, Inc., Jefferies LLC and William Blair & Company, L.L.C. are acting as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock set forth opposite its name below.

Underwriter	Number of Shares
BofA Securities, Inc.	
Jefferies LLC	
William Blair & Company, L.L.C.	
BTIG, LLC	
Total	3,500,000

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares 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 against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of $ per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares.

	Per Share	Without Option	With Option
Public offering price	$	$	$
Underwriting discount	$	$	$
Proceeds, before expenses, to us	$	$	$

The expenses of the offering, not including the underwriting discount, are estimated at $2.6 million and are payable by us. We have also agreed to reimburse the underwriters for their expenses relating to clearance of this offering with the Financial Industry Regulatory Authority in an amount up to $50,000.

Option to Purchase Additional Shares

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to 525,000 additional shares at the public offering price, less the underwriting discount. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We, our executive officers and directors and our other existing security holders have agreed not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for, or repayable with common stock, for 180 days after the date of this prospectus without first obtaining the written consent of BofA Securities, Inc. and Jefferies LLC. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, pledge, sell or contract to sell any common stock,
- sell any option or contract to purchase any common stock,
- purchase any option or contract to sell any common stock,
- grant any option, right or warrant for the sale of any common stock,
- lend or otherwise dispose of or transfer any common stock,
- request or demand that we file or make a confidential submission of a registration statement related to the common stock,
- enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise, or
- publicly disclose the intention to do any of the foregoing.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. BofA Securities, Inc. and Jefferies LLC, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice.

Nasdaq Global Market Listing

We expect the shares to be approved for listing on The Nasdaq Global Market, subject to notice of issuance, under the symbol "LYRA."

Before this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are

- the valuation multiples of publicly traded companies that the representatives believe to be comparable to us,

- our financial information,
- the history of, and the prospects for, our company and the industry in which we compete,
- an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues,
- the present state of our development, and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. “Covered” short sales are sales made in an amount not greater than the underwriters’ option to purchase additional shares described above. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares 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 granted to them. “Naked” short sales are sales in excess of such option. 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 our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters’ 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. The underwriters may conduct these transactions on The Nasdaq Global Market, in the over-the-counter market or otherwise.

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. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the underwriters and their 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. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

European Economic Area and the United Kingdom

In relation to each Member State of the European Economic Area and the United Kingdom (each a "Relevant State"), no Shares have been offered or will be offered pursuant to the initial offering to the public in that Relevant State prior to the publication of a prospectus in relation to the Shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation), except that offers of Shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

a. to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

b. to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the representative for any such offer; or

c. in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of Shares shall require the Issuer or any Manager to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

Each person in a Relevant State who initially acquires any Shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with the Company and the Managers that it is a qualified investor within the meaning of the Prospectus Regulation.

In the case of any Shares being offered to a financial intermediary as that term is used in Article 5(1) of the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the Shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer to the public other than their offer or resale in a Relevant State to qualified investors, in circumstances in which the prior consent of the underwriters has been obtained to each such proposed offer or resale.

The Company, the underwriters and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

For the purposes of this provision, the expression an "offer to the public" in relation to any Shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any Shares to be offered so as to enable an investor to decide to purchase or subscribe for any Shares, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

References to the Prospectus Regulation includes, in relation to the UK, the Prospectus Regulation as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018.

The above selling restriction is in addition to any other selling restrictions set out below.

Notice to Prospective Investors in the United Kingdom

This document is for distribution only to persons who (i) have professional experience in matters relating to investments and who qualify as investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, as amended ("FSMA")) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

Notice to Prospective Investors in Switzerland

The shares 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 document 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 document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority, or FINMA, and the offer of shares 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 shares.

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or DFSA. This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The shares to which this prospectus relates may be illiquid and/or subject

to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, or ASIC, in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons, or the Exempt Investors, who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) 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 which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, 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 to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Notice to Prospective Investors in Japan

The shares have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, "Japanese Person" shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the shares were not offered or sold or caused to be made the subject of an invitation for subscription or purchase and will not be offered or sold or caused to be made the subject of an invitation for subscription or purchase, and this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, has not been circulated or distributed, nor will it be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, or, as modified or amended from time to time, the SFA, pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, 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 shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) 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

(b) 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 or securities-based derivatives contracts (each term as defined in Section 2(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 shares pursuant to an offer made under Section 275 of the SFA except:

(a) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(b) where no consideration is or will be given for the transfer;

(c) where the transfer is by operation of law; or

(d) as specified in Section 276(7) of the SFA.

Notice to Prospective Investors in Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) 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 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.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts*, or NI 33-105, the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Latham & Watkins LLP. Certain legal matters will be passed upon for the underwriters by Shearman & Sterling LLP.

EXPERTS

The consolidated financial statements as of December 31, 2019 and 2018 and for the years then ended included in this Prospectus have been so included in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, appearing elsewhere herein and in the Registration Statement, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission 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 completion of this offering, we will be required to file periodic reports, proxy statements, and other information with the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934. The Securities and Exchange Commission maintains an Internet website that contains such reports, proxy statements and other information about registrants, like us, that file electronically with the Securities and Exchange Commission. The address of that site is *www.sec.gov*.

We also maintain a website at *www.lyratherapeutics.com.* Information contained in, or accessible through, our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is only as an inactive textual reference.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Lyra Therapeutics, Inc.
Watertown, MA

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Lyra Therapeutics, Inc. (the "Company") and subsidiary as of December 31, 2019 and 2018, the related consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders' (deficit) equity, and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated 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 audit 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 consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2013.
Boston, Massachusetts
February 14, 2020, except for Note 13 b and c, which are as of April 27, 2020

LYRA THERAPEUTICS, INC.

CONSOLIDATED BALANCE SHEETS

(In Thousands, Except Share and Per Share Data)

	December 31,		Pro Forma December 31,
	2019	2018	2019
Assets			
Current assets:			
Cash and cash equivalents	$ 9,808	$ 23,888	$ 9,808
Grants receivable	—	167	—
Prepaid expenses and other current assets	311	872	311
Total current assets	10,119	24,927	10,119
Property and equipment, net	237	103	237
Operating lease right-of-use asset	3,182	—	3,182
Restricted cash	329	329	329
Deferred offering costs	1,096	—	1,096
Total assets	$ 14,963	$ 25,359	$ 14,963
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity			
Current liabilities:			
Accounts payable	$ 1,069	$ 631	$ 1,069
Accrued expenses and other current liabilities	3,240	1,329	3,240
Operating lease liability	899	—	899
Total current liabilities	5,208	1,960	5,208
Deferred rent	—	120	—
Operating lease liability, net of current portion	2,427	—	2,427
Total liabilities	7,635	2,080	7,635
Commitments and contingencies (Note 11)			
Series A-1 redeemable convertible preferred stock, $0.001 par value; 34,017,033 shares authorized, issued and outstanding at December 31, 2019 and 2018 (aggregate liquidation preference of $14,157 at December 31, 2019); no shares authorized, issued or outstanding, pro forma (unaudited)	39,742	39,742	—
Series A-2 redeemable convertible preferred stock, $0.001 par value; 26,680,202 shares authorized, issued and outstanding at December 31, 2019 and 2018 (aggregate liquidation preference of $9,063 at December 31, 2019); no shares authorized, issued or outstanding, pro forma (unaudited)	18,393	18,393	—
Series A-3 redeemable convertible preferred stock, $0.001 par value; 30,070,487 shares authorized, issued and outstanding at December 31, 2019 and 2018 (aggregate liquidation preference of $18,779 at December 31, 2019); no shares authorized, issued or outstanding, pro forma (unaudited)	38,114	38,114	—
Series A-4 redeemable convertible preferred stock, $0.001 par value; 19,999,999 shares authorized, issued and outstanding at December 31, 2019 and 2018 (aggregate liquidation preference of $6,000 at December 31, 2019); no shares authorized, issued or outstanding, pro forma (unaudited)	6,000	6,000	—
Series B redeemable convertible preferred stock, $0.001 par value; 100,018,619 shares authorized at December 31, 2019 and 2018; 98,351,953 shares issued and outstanding at December 31, 2019 and 2018 (aggregate liquidation preference of $29,506 at December 31, 2019); no shares authorized, issued or outstanding, pro forma (unaudited)	28,417	28,104	—
Total redeemable convertible preferred stock	130,666	130,353	—
Stockholders' (deficit) equity:			
Common stock, $0.001 par value; 275,000,000 shares authorized at December 31, 2019 and 2018; 230,860 and 170,156 shares issued and outstanding at December 31, 2019 and 2018, respectively; 6,295,239 shares issued and outstanding, pro forma at December 31, 2019 (unaudited)	—	—	6
Additional paid-in capital	4,419	4,377	135,079
Accumulated deficit	(127,757)	(111,451)	(127,757)
Total stockholders' (deficit) equity	(123,338)	(107,074)	7,328
Total liabilities, redeemable convertible preferred stock and stockholders' (deficit) equity	$ 14,963	$ 25,359	$ 14,963

See accompanying notes to consolidated financial statements.

LYRA THERAPEUTICS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(In Thousands, Except Share and Per Share Data)

	Year Ended December 31,	
	2019	2018
Grant revenues	$ —	$ 1,244
Operating expenses:		
Research and development	12,032	4,975
General and administrative	4,487	3,528
Total operating expenses	16,519	8,503
Loss from operations	(16,519)	(7,259)
Other income:		
Interest income (expense), net	213	36
Other income, net	—	10
Change in fair value of tranche liability	—	1,184
Total other income, net	213	1,230
Net loss	$ (16,306)	$ (6,029)
Comprehensive loss	$ (16,306)	$ (6,029)
Net loss per share attributable to common stockholders—basic and diluted	$ (82.23)	$ (36.79)
Weighted-average common shares outstanding—basic and diluted	202,093	166,084
Pro forma net loss per share attributable to common stockholders—basic and diluted (unaudited)	$ (2.65)	
Pro forma weighted-average common shares outstanding—basic and diluted (unaudited)	6,266,472	

See accompanying notes to consolidated financial statements.

LYRA THERAPEUTICS, INC.

CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' (DEFICIT) EQUITY

(In Thousands, Except Share Amounts)

	Series A-1 Redeemable Convertible Preferred Stock		Series A-2 Redeemable Convertible Preferred Stock		Series A-3 Redeemable Convertible Preferred Stock		Series A-4 Redeemable Convertible Preferred Stock		Series B Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders (Deficit) Equity
	Shares	Value	Shares	Value	Shares	Value	Shares	Value	Shares	Value	Shares	Amount			
Balance at December 31, 2017	34,017,033	$ 39,742	26,680,202	$ 18,393	30,070,487	$ 38,114	19,999,999	$ 6,000	—	$ —	165,713	$ —	$ 4,040	$ (105,422)	$ (101,38
Issuance of Series B redeemable convertible preferred stock, net of issuance costs of $299	—	—	—	—	—	—	—	—	96,666,656	26,618	—	—	—	—	—
Issuance of Series B redeemable convertible preferred stock in exchange for convertible debt	—	—	—	—	—	—	—	—	1,685,297	506	—	—	—	—	—
Accretion of convertible preferred stock to redemption value	—	—	—	—	—	—	—	—	—	81	—	—	(81)	—	(8
Settlement of tranche liability	—	—	—	—	—	—	—	—	—	899	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	406	—	40
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	4,443	—	12	—	1
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	(6,029)	(6,02
Balance at December 31, 2018	34,017,033	39,742	26,680,202	18,393	30,070,487	38,114	19,999,999	6,000	98,351,953	28,104	170,156	—	4,377	(111,451)	(107,07
Accretion of convertible preferred stock to redemption value	—	—	—	—	—	—	—	—	—	313	—	—	(313)	—	(31
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	244	—	24
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	60,704	—	111	—	11
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	(16,306)	(16,30
Balance at December 31, 2019	34,017,033	39,742	26,680,202	18,393	30,070,487	38,114	19,999,999	6,000	98,351,953	28,417	230,860	—	4,419	(127,757)	(123,33
Conversion of preferred stock into common stock (unaudited)	(34,017,033)	(39,742)	(26,680,202)	(18,393)	(30,070,487)	(38,114)	(19,999,999)	(6,000)	(98,351,953)	(28,417)	6,064,379	6	130,660	—	130,66
Balance at December 31, 2019 pro forma (unaudited)	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	6,295,239	$ 6	$ 135,079	$ (127,757)	$ 7,32

See accompanying notes to consolidated financial statements.

LYRA THERAPEUTICS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Thousands)

	Year Ended December 31, 2019	2018
Cash flows from operating activities:		
Net loss	$ (16,306)	$ (6,029)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	244	406
Depreciation expense	27	82
Reserve for uncollectible accounts	167	—
Change in fair value of tranche liability	—	(1,184)
Non-cash interest expense	—	6
Changes in assets and liabilities:		
Grants receivable	—	164
Prepaid expenses and other current assets	561	(291)
Operating lease right-of-use asset	864	—
Accounts payable	(205)	134
Accrued expenses and other current liabilities	1,734	(7)
Operating lease liability	(840)	—
Deferred rent	—	79
Net cash used in operating activities	(13,754)	(6,640)
Cash flows from investing activities:		
Purchases of property and equipment	(211)	(37)
Net cash used in investing activities	(211)	(37)
Cash flows from financing activities:		
Proceeds from the sale of Series B redeemable convertible preferred stock	—	29,000
Payment of offering costs related to sale of Series B redeemable convertible preferred stock	—	(299)
Proceeds from exercise of common stock options	111	12
Proceeds from convertible notes payable	—	500
Payments for deferred offering costs	(226)	—
Net cash (used in) provided by financing activities	(115)	29,213
Net (decrease) increase in cash and cash equivalents	(14,080)	22,536
Cash and cash equivalents and restricted cash, beginning of period	24,217	1,681
Cash and cash equivalents and restricted cash, end of period	$ 10,137	$ 24,217
Supplemental disclosure of non-cash financing and investing activities:		
Property and equipment purchases included in accounts payable	$ 2	$ 52
Conversion of convertible notes payable	$ —	$ 500
Allocation of redeemable convertible preferred stock to tranche liability	$ —	$ 2,083
Settlement of tranche liability	$ —	$ (899)
Accretion of redeemable convertible preferred stock to redemption value	$ 313	$ 81
Right-of-use asset obtained in exchange of operating lease obligation	$ 4,046	$ —
Deferred offering costs included in accounts payable and accrued expense	$ 870	$ —

See accompanying notes to financial statements.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Basis of Presentation

Lyra Therapeutics, Inc. (the "Company") is a clinical-stage therapeutics company focused on the development and commercialization of novel integrated drug and delivery solutions for the localized treatment of patients with ear, nose and throat ("ENT") diseases. The Company's proprietary technology platform, XTreo, is designed to precisely and consistently deliver medicines directly to the affected tissue for sustained periods with a single administration. The Company's initial product candidates, LYR-210 and LYR-220, are bioresorbable polymeric matrices designed to be administered in a brief, non-invasive, in-office procedure and intended to deliver up to six months of continuous drug therapy to the sinonasal passages for the treatment of chronic rhinosinusitis ("CRS"). The Company was incorporated as a Delaware corporation on November 21, 2005 and is located in Watertown, Massachusetts. On July 16, 2018, the Company formerly changed its name from 480 Biomedical, Inc. to Lyra Therapeutics, Inc.

The Company is subject to risks common to companies in the specialty pharmaceuticals industry, including but not limited to, risks of failure of preclinical studies and clinical trials, the need to obtain marketing approval for any drug product candidate that it may identify and develop, the need to successfully commercialize and gain market acceptance of its product candidates, dependence on key personnel, protection of proprietary technology, compliance with government regulations, development by competitors of technological innovations, reliance on third party manufacturers, ability to transition from pilot-scale manufacturing to large-scale production of products and the need to obtain adequate additional financing to fund the development of its product candidates.

Since inception, the Company has funded its operations with proceeds from sales of redeemable convertible preferred stock and funding from government contracts. The Company has incurred recurring net losses since inception of approximately $16.3 million and $6.0 million for the years ended December 31, 2019 and 2018, respectively. In addition, the Company has an accumulated deficit of approximately $127.8 million at December 31, 2019. The Company expects to continue to generate operating losses for the foreseeable future. At December 31, 2019, the Company had approximately $9.8 million of cash and cash equivalents. In January 2020, the Company issued 78,306,611 shares of Series C redeemable convertible preferred stock for $0.38811 per share, in exchange for gross cash proceeds of approximately $30.4 million.

The Company believes that its cash and cash equivalents as of December 31, 2019 along with the proceeds from its sale of Series C redeemable convertible preferred stock in January 2020 will be sufficient to fund the Company's operating plan for a period of at least one year from the issuance date of the consolidated financial statements. The future viability of the Company beyond that point is dependent on its ability to raise additional capital to finance its future operations. The Company will seek additional funding through an initial public offering of its common stock or private financings, debt financing, collaboration agreements or government grants. The inability to obtain funding, including an initial public offering, as and when needed, would have a negative impact on the Company's financial condition and ability to pursue its business strategies. If the Company is unable to obtain funding, the Company could be forced to delay, reduce or eliminate some or all of its research and development programs, product portfolio expansion or commercialization efforts, which could adversely affect its business prospects, or the Company may be unable to continue operations. Although management intends to pursue plans to obtain additional funding to finance its operations, there is no assurance that the Company will be successful in obtaining sufficient funding on terms acceptable to the Company to fund continuing operations, if at all. If the Company is unable to complete a sufficient public offering in a timely manner, it would need to pursue other financing alternatives, such as private financing of debt or equity or collaboration agreements.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standard Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

Unaudited Pro Forma Financial Information

The accompanying unaudited pro forma balance sheet as of December 31, 2019 has been prepared to give effect to the automatic conversion of all outstanding shares of redeemable convertible preferred stock into 6,064,379 shares of common stock as if the Company's proposed initial public offering had occurred on December 31, 2019.

In the accompanying statements of operations and comprehensive loss, the unaudited pro forma net loss attributable to common stockholders used in the calculation of unaudited basic and diluted pro forma net loss per share attributable to common stockholders does not include the effects of the accretion of issuance costs on redeemable convertible preferred stock because it assumes that the conversion of convertible preferred stock into common stock occurred on the later of the beginning of the reporting period or the issuance date of the redeemable convertible preferred stock.

The unaudited pro forma basic and diluted weighted-average common shares outstanding used in the calculation of unaudited pro forma basic and diluted net loss per share attributable to common stockholders for the year ended December 31, 2019 give effect to the automatic conversion of all outstanding shares of redeemable convertible preferred stock into shares of common stock as if the conversion had occurred on the later of January 1, 2019 or the issuance date of the redeemable convertible preferred stock for the year ended December 31, 2019.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of Lyra Therapeutics, Inc. and its wholly owned subsidiary Lyra Therapeutics Security Corporation, which was incorporated in December 2018. All intercompany transactions and balances have been eliminated.

The accompanying consolidated financial statements reflect the application of certain significant accounting policies as described in this note and elsewhere in the accompanying consolidated financial statements and notes.

Use of Estimates

The preparation of the Company's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, expenses and related disclosure of contingent assets and liabilities at the date of the consolidated financial statements and reported amounts of expenses during the reporting period. On an ongoing basis, the Company's management evaluates its estimates, which include but are not limited to management's judgments of accrued expenses, fair value of common stock, valuation of share-based awards and deferred income taxes. Due to the uncertainty inherent in such estimates, actual results may differ from these estimates.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The Company utilizes significant estimates and assumptions in determining the fair value of its common stock. The Company has utilized various valuation methodologies to estimate the fair value of its common stock. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates and assumptions include a number of objective and subjective factors, including external market conditions, the prices at which the Company sold shares of preferred stock, the superior rights and preferences of securities senior to the Company's common stock at the time of, and the likelihood of, achieving a liquidity event, such as an initial public offering or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

Segment Information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision-maker in deciding how to allocate resources and assess performance. The Company and the Company's chief operating decision-maker, the Company's chief executive officer, views the Company's operations and manages its business as a single operating segment, which is the business of developing targeted medicines to address ENT diseases.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. As the Company did not have any element of other comprehensive income (loss), its comprehensive loss is equal to its net loss for all periods presented.

Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. Cash and cash equivalents include cash held in banks and amounts held in money market funds. Cash equivalents are stated at cost, which approximates market value.

Cash and cash equivalents consist of cash held in banks at December 31, 2019 and 2018.

Restricted Cash

The Company had restricted cash of approximately $0.3 million as of December 31, 2019 and 2018, which was held in certificates of deposit at the Company's financial institution to secure the Company's letter of credit for its facility lease.

Concentrations of Credit Risk and Off-Balance Sheet Risk

Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash, cash equivalents and grants receivable. The Company maintains all its cash and cash equivalents at a single accredited financial institution, in amounts that exceed federally insured limits. The grants receivable as of December 31, 2018 are from various government agencies as discussed below.

The Company has no significant off-balance sheet risk such as foreign exchange contracts, option contracts, or other foreign exchange hedging arrangements.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Grants Receivable

As of December 31, 2018, the Company had grants receivable of $0.2 million from the National Institute of Health's ("NIH") National Heart, Lung and Blood Institute ("NHLBI"). During the year ended December 31, 2019, the Company fully reserved the grant receivable as the Company determined it was unlikely to collect it and as a result, at December 31, 2019, it had grants receivable of $0.

Significant Suppliers

The Company is dependent on third-party manufacturers to supply products for research and development activities in its programs. In particular, the Company relies and expects to continue to rely on a small number of manufacturers to supply it with its requirements for the drug product and associated applicator related to these programs. These programs could be adversely affected by a significant interruption in the supply of the materials required to manufacture the drug product and associated applicator.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received upon sale of an asset or paid to transfer a liability between market participants at a measurement date. ASC Topic 820, *Fair Value Measurements* ("ASC 820"), establishes a three-level valuation hierarchy for instruments measured at fair value that prioritizes the inputs used to measure fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. The fair value hierarchy applies only to the valuation inputs used in determining the reported or disclosed fair value of the financial instruments and is not a measure of the investment credit quality. The three levels of the fair value hierarchy established by ASC 820 in order of priority are as follows:

Level 1 - Quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

Level 2 - Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable, such as quoted market prices, interest rates and yield curves.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

An entity may elect to measure many financial instruments and certain other items at fair value at specified election dates. Subsequent unrealized gains and losses on items for which the fair value option has been elected will be reported in net loss. The Company did not elect to measure any financial instruments or other items at fair value.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Derivative Liabilities

In connection with certain debt and equity financings, the Company may issue financial instruments in which a derivative instrument is "embedded." Upon issuing the financial instrument, the Company assesses whether the economic characteristics of the embedded derivative are clearly and closely related to the economic characteristics of the remaining component of the financial instrument (i.e., the host contract) and whether a separate, non-embedded instrument with the same terms as the embedded instrument would meet the definition of a derivative instrument. When it is determined that (1) the embedded derivative possesses economic characteristics that are not clearly and closely related to the economic characteristics of the host contract, and (2) a separate, stand-alone instrument with the same terms would qualify as a derivative instrument, the embedded derivative is separated from the host contract and carried at fair value until the derivative is settled. Changes in the fair value of the derivative liabilities are recognized as other income (expense) in the consolidated statement of operations and comprehensive loss.

Classification and Accretion of Redeemable Convertible Preferred Shares

The Company has classified the redeemable convertible preferred stock outside of stockholders' (deficit) equity in the accompanying consolidated balance sheets in accordance with authoritative guidance for the classification and measurement of redeemable securities as the redeemable convertible preferred stock is redeemable at a determinable price on a fixed date or upon the occurrence of a deemed liquidation event. The carrying values of the redeemable convertible preferred shares are accreted to their redemption values from the date of issuance through the earliest date of redemption.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Depreciation expense is recognized using the straight-line method over the estimated useful life of each asset as follows:

	Estimated Useful Life
Laboratory equipment	5 years
Computer software and equipment	3 years
Office furniture and fixtures	7 years
Leasehold improvements	Shorter of useful life or remaining term of related lease

Costs for capital assets not yet placed into service are capitalized as construction in progress and are depreciated in accordance with the above guidelines once placed into service. Upon retirement or sale, the cost of the assets disposed of and the related accumulated depreciation are eliminated from the balance sheet and related gains or losses are reflected in the consolidated statement of operations and comprehensive loss. Repairs and maintenance that do not improve or extend the lives of the respective assets are expensed as incurred, while costs of major additions and betterments are capitalized.

Impairment of Long-Lived Assets

Long-lived assets consist of property and equipment. The Company continually evaluates long-lived assets for potential impairment when events or changes in circumstances indicate the carrying value of the assets may not be recoverable. Recoverability is measured by comparing the book values of the assets to the expected future net undiscounted cash flows that the assets are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the book values of the assets exceed their fair value. The Company did not record any impairment losses on long-lived assets during the years ended December 31, 2019 and 2018.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Leases

ASU No. 2016-02, Leases (Topic 842) ("ASU No. 2016-02"), became effective January 1, 2019. As of the effective date of ASU No. 2016-02, the Company determines at the inception of an arrangement whether the arrangement contains a lease. If a lease is identified in an arrangement, the Company recognizes a right-of-use asset and liability on its balance sheet and determines whether the lease should be classified as a finance or operating lease. The Company does not recognize assets or liabilities for leases with lease terms of less than 12 months.

A lease qualifies as a finance lease if any of the following criteria are met at the inception of the lease: (i) there is a transfer of ownership of the leased asset to the Company by the end of the lease term, (ii) the Company holds an option to purchase the leased asset that it is reasonably certain to exercise, (iii) the lease term is for a major part of the remaining economic life of the leased asset, (iv) the present value of the sum of lease payments equals or exceeds substantially all of the fair value of the leased asset, (v) the nature of the leased asset is specialized to the point that it is expected to provide the lessor no alternative use at the end of the lease term. All other leases are recorded as operating leases.

Finance and operating lease assets and liabilities are recognized at the lease commencement date based on the present value of the lease payments over the lease term using the discount rate implicit in the lease. If the rate implicit in the lease is not readily determinable, the Company utilizes its incremental borrowing rate at the lease commencement date. Operating lease assets are further adjusted for prepaid or accrued lease payments. Operating lease payments are expensed using the straight-line method as an operating expense over the lease term. Finance lease assets are amortized to depreciation expense using the straight-line method over the shorter of the useful life of the related asset or the lease term. Finance lease payments are bifurcated into (i) a portion that is recorded as imputed interest expense and (ii) a portion that reduces the finance liability associated with the lease.

The Company separates lease and non-lease components when determining which lease payments to include in the calculation of its lease assets and liabilities. Variable lease payments are expensed as incurred. If a lease includes an option to extend or terminate the lease, the Company reflects the option in the lease term if it is reasonably certain it will exercise the option.

Operating leases are recorded in "Operating lease right-of use asset," "Operating lease liability" and "Operating lease liability, net of current portion" in the Company's consolidated balance sheets. The Company did not have any finance leases recorded in its consolidated balance sheet as of December 31, 2019.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development expenses include salaries and benefits, materials and supplies, preclinical and clinical trial expenses, manufacturing expenses, stock-based compensation expense, depreciation of equipment, contract services and other outside expenses. Costs of certain development activities, such as clinical trials, are recognized based on an evaluation of the progress to completion of specific tasks. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred, and are reflected in the consolidated financial statements as prepaid or accrued research and development costs. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

The Company has entered into various research and development contracts with companies both inside and outside of the United States. These agreements are generally cancelable, and related payments are recorded

as research and development expenses as incurred. The Company records accruals for estimated ongoing research costs. When evaluating the adequacy of the accrued liabilities, the Company analyzes progress of the studies or trials, including the phase or completion of events, invoices received and contracted costs. Significant judgments and estimates are made in determining the accrued balances at the end of any reporting period. Actual results could differ from the Company's estimates. The Company's historical accrual estimates have not been materially different from the actual costs.

Patent Costs

The Company expenses patent application and related legal costs as incurred and classifies such costs as general and administrative expenses in the accompanying consolidated statements of operations and comprehensive loss.

Accounting for Stock-Based Compensation

The Company accounts for its stock-based compensation in accordance with ASC Topic 718, *Compensation—Stock Compensation* ("ASC 718"). ASC 718 requires all stock-based payments to employees and directors to be recognized as expense in the consolidated statements of operations and comprehensive loss based on their grant date fair values. The Company estimates the fair value of options granted using the Black-Scholes option pricing model for stock option grants to both employees and non-employees. The Company believes the fair value of the stock options granted to non-employees is more reliably determinable than the fair value of the services provided.

The Black-Scholes option pricing model requires inputs based on certain subjective assumptions, including (a) the expected stock price volatility, (b) the expected term of the award, (c) the risk-free interest rate and (d) expected dividends. Due to the lack of a public market for the Company's common stock and a lack of company-specific historical and implied volatility data, the Company has based its computation of expected volatility on the historical volatility of a representative group of public companies with similar characteristics to the Company, including stage of product development and life science industry focus. The historical volatility is calculated based on a period of time commensurate with the expected term assumption. The Company uses the simplified method as prescribed by the SEC Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term for options granted to employees as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. The expected term is applied to the stock option grant group as a whole, as the Company does not expect substantially different exercise or post-vesting termination behavior among its employee population. For options granted to non-employees, the Company utilizes the contractual term of the share-based payment as the basis for the expected term assumption. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected term of the stock options. The expected dividend yield is assumed to be zero as the Company has never paid cash dividends and has no current plans to pay any cash dividends on its common stock.

The Company has elected as a policy to recognize forfeitures as they occur as described in ASU No. 2016-09, *Compensation—Stock Compensation* ("ASU No. 2016-09").

The Company expenses the fair value of its stock-based compensation awards to employees on a straight-line basis over the requisite service period, which is generally the vesting period. The Company records the expense for stock-based compensation awards subject to performance-based milestone vesting when management determines that achievement of the milestone is probable. Management evaluates when the achievement of a performance-based milestone is probable based on the expected satisfaction of the performance conditions as of the reporting date.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The Company adopted ASU No. 2018-07, *Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting* ("ASU No. 2018-07") on January 1, 2019 which permits the valuation of stock-based awards granted to non-employees to be measured at fair value at the grant date rather than on an accelerated attribution basis over the vesting period and recognizes non-employee stock-based compensation expense over the related service period of the non-employee award. Prior to January 1, 2019, the Company accounted for stock-based payments to non-employees in accordance with ASC Topic 505, *Equity-Based Payments to Non-Employees* ("ASC 505"). ASC 505 requires that the expense related to stock-based payments to non-employees be recognized in the consolidated statement of operations and comprehensive loss based on the awards' vesting date fair values. Under ASC 505, stock-based compensation awards to non-employees were adjusted through stock-based compensation expense at each reporting period end to reflect the current fair value of such awards and were expensed on a straight-line basis.

Income Taxes

The Company accounts for income taxes using the liability method in accordance with ASC Topic 740, *Income Taxes* ("ASC 740"). The difference between the financial statement and tax basis of the assets and liabilities is determined annually. Deferred income tax assets and liabilities are computed using the tax laws and rates that are expected to apply for periods in which such differences reverse. Valuation allowances are established, if necessary, to reduce the deferred tax asset to the amount that will more likely than not be realized.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Contingencies

In accordance with ASC Topic 450, Contingencies, the Company records accruals for contingencies and legal proceedings expected to be incurred in connection with a loss contingency when it is probable that a liability has been incurred and the amount can be reasonably estimated.

If a loss contingency is not probable but is reasonably possible, or is probable but cannot be estimated, the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material, would be disclosed.

Guarantees

The Company has identified the guarantees described below as disclosable, in accordance with ASC Topic 460, *Guarantees*.

As permitted under Delaware law, the Company indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at the Company's request in such capacity. The maximum potential amount of future payments the Company could be required to make is unlimited; however, the Company has directors' and officers' insurance coverage that should limit its exposure and enable it to recover a portion of any future amounts paid.

The Company is a party to a number of agreements entered into in the ordinary course of business that contain typical provisions that obligate the Company to indemnify the other parties to such agreements upon the occurrence of certain events. Such indemnification obligations are usually in effect from the date of execution of the applicable agreement for a period equal to the applicable statute of limitations. The aggregate maximum potential future liability of the Company under such indemnification provisions is uncertain.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The Company leases office space under a noncancelable operating lease. The Company has standard indemnification arrangements under the lease that requires it to indemnify the landlord against all costs, expenses, fines, suits, claims, demands, liabilities, and actions directly resulting from any breach, violation, or nonperformance of any covenant or condition of the lease.

As of December 31, 2019 and 2018, the Company had not experienced any losses related to these indemnification obligations, and no material claims with respect thereto were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related reserves have been established.

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 financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' (deficit) equity as a reduction of additional paid-in capital 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 consolidated statement of operations and comprehensive loss.

Government Contracts and Revenue Recognition

The Company generated revenue from government contracts that reimbursed the Company for certain allowable costs for funded projects. For contracts with government agencies, when the Company has concluded that it is the principal in conducting the research and development activities and where the funding arrangement is considered central to the Company's ongoing operations, the Company classifies the recognized funding received as revenue.

In July 2016, the Company was awarded a grant from the NIH titled "Novel Bioabsorbable, Flexible Polymeric Stent for Pulmonary Artery Stenosis". The amount awarded of approximately $1.0 million related to the period August 2016 through July 2019.

In September 2016, the Company received a fixed-fee award of approximately $0.4 million from NIH for the development leading to the commercialization of bioresorbable stents ("BRS") for the treatment of coarctation of the aorta in neonates. In November 2017, the Company was awarded an amendment to the contract increasing the amount by approximately $3.0 million.

Grants are invoiced and revenue is recognized as expenses are incurred as that is the depiction of the timing of the transfer of services. Reimbursements are based on actual costs agreed upon in the proposal (salary, fringe benefits, overhead, and direct costs such as materials and subcontractors).

The Company recognized revenue under these best-efforts, cost-reimbursable and cost-plus fixed-fee awards, as the Company performed services as long as an award agreement had been executed and the fees for these services were fixed or determinable, legally billable and reasonably assured of collection. Recognized amounts reflected the Company's partial performance under the awards and equal direct and indirect costs incurred plus fixed fees, where applicable. The Company did not recognize revenue under these arrangements for amounts related to contract periods where funding was not yet committed, as amounts above committed funding thresholds would not be considered fixed or determinable or reasonably assured of collection. Revenues and expenses under these arrangements are presented gross in the consolidated statements of operations and comprehensive loss, as the Company had determined it was the primary obligor under these arrangements relative to the research and development activities it performed as the lead technical expert.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Total revenue for the years ended December 31, 2019 and 2018 under the grants was $0 and $1.2 million, respectively. Of the amounts recognized during the years ended December 31, 2018, approximately $1.1 million was received as of year-end. The remaining balance of approximately $0.2 million as of December 31, 2018 was recorded as grants receivable. During the year ended December 31, 2019, the Company fully reserved the grant receivable as the Company determined it was unlikely to collect it.

Net Loss per Share

The Company has reported losses since inception and has computed basic net loss per share attributable to common stockholders by dividing net loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period, without consideration for potentially dilutive securities. The Company has computed diluted net loss per common share after giving consideration to all potentially dilutive common shares, including options to purchase common stock and redeemable convertible preferred stock, outstanding during the period determined using the treasury-stock and if-converted methods, except where the effect of including such securities would be antidilutive. Because the Company has reported net losses since inception, these potential common shares have been anti-dilutive and basic and diluted loss per share have been the same.

Basic and diluted net loss per share attributable to common stockholders was calculated as follows (in thousands, except share and per share data):

	Year Ended December 31,	
	2019	2018
Numerator:		
Net loss	$ (16,306)	$ (6,029)
Accretion of redeemable convertible preferred stock	(313)	(81)
Net loss attributable to common stockholders	$ (16,619)	$ (6,110)
Denominator:		
Weighted-average common shares—basic and diluted	202,093	166,084
Net loss per share attributable to common stockholders—basic and diluted	$ (82.23)	$ (36.79)

The following table sets forth the potentially dilutive securities that have been excluded from the calculation of diluted net loss per share because to include them would be anti-dilutive (in common stock equivalent shares retroactively adjusted):

	Year Ended December 31,	
	2019	2018
Series A-1 redeemable convertible preferred stock	986,466	986,466
Series A-2 redeemable convertible preferred stock	773,712	773,712
Series A-3 redeemable convertible preferred stock	872,031	872,031
Series A-4 redeemable convertible preferred stock	579,993	579,993
Series B redeemable convertible preferred stock	2,852,177	2,852,177
Stock options	792,439	553,741
Total	6,856,818	6,618,120

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Unaudited Pro Forma Net Loss per Share

Unaudited pro forma net loss per share attributable to common stockholders is computed using the weighted-average number of common shares outstanding after giving effect to the conversion of all the redeemable convertible preferred stock into shares of common stock as if such conversion had occurred at the beginning of the period presented or the date of original issuance, if later.

The following table summarizes the Company's unaudited pro forma net loss per share attributable to common stockholders (in thousands, except share and per share data):

	Year Ended December 31, 2019
Numerator:	
Net loss	$ (16,306)
Accretion of redeemable convertible preferred stock	(313)
Pro forma net loss attributable to common stockholders	$ (16,619)
Denominator:	
Weighted-average common shares—basic and diluted	202,093
Adjustment for assumed conversion of redeemable convertible preferred stock	6,064,379
Pro forma weighted-average common shares—basic and diluted	6,266,472
Pro forma net loss per share attributable to common stockholders—basic and diluted	$ (2.65)

Recently Adopted Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by the Company as of the specified effective date.

In February 2016, the FASB issued ASU No. 2016-02. The standard requires that all lessees recognize the assets and liabilities that arise from leases on the balance sheet and disclose qualitative and quantitative information about its leasing arrangements. In July 2018, the FASB issued ASU No. 2018-11, *Leases (Topic 842): Targeted Improvements* ("ASU No. 2018-11"), which offers a transition option to entities adopting ASC Topic 842. Under ASU No. 2018-11 entities can elect to apply ASC 842 using a modified-retrospective adoption approach resulting in a cumulative effect adjustment to accumulated deficit at the beginning of the year in which the new lease standard is adopted, rather than adjustments to the earliest comparative period presented in their financial statements. Pursuant to the guidance under ASU No. 2016-02, the Company elected the optional package of practical expedients, which allow the Company to not reassess: (i) whether expired or existing contracts contain leases; (ii) lease classification for any expired or existing leases; and (iii) initial direct costs for any existing leases. The standard also allows entities to make certain policy elections, some of which the Company also plans to elect, including: (i) a policy to not record short-term leases on the balance sheet and (ii) a policy to not separate lease and non-lease components for certain classes of underlying assets. The Company adopted ASC No. 842 as of January 1, 2019 using the modified-retrospective method and recorded a right-of-use asset of approximately $4.0 million and corresponding liability of approximately $4.2 million related to its real estate lease with a term of more than 12 months which is not treated as financing lease under ASC 842, accordingly. These adjustments had no impact on the Company's consolidated statement of operations and comprehensive loss and no material impact on the Company's accumulated deficit.

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*

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

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 ("ASU No. 2017-11"). Part I of ASU No. 2017-11 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 ASU No. 2017-11 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 ASU No. 2017-11 do not have an accounting effect. ASU No. 2017-11 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. The Company adopted ASU No. 2017-11 as of January 1, 2019. The adoption of ASU No. 2017-11 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

In June 2018, the FASB issued ASU No. 2018-07, *Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting* ("ASU No. 2018-07"). The new standard largely aligns the accounting for share-based payment awards issued to employees and non-employees by expanding the scope of ASC 718 to apply to non-employee share-based transactions, as long as the transaction is not effectively a form of financing. The Company adopted ASU No. 2018-07 as of January 1, 2019. The adoption of ASU No. 2018-07 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

In August 2018, the SEC adopted the final rule under SEC Release No. 33-10532, *Disclosure Update and Simplification*, amending certain disclosure requirements that were redundant, duplicative, overlapping, outdated or superseded. In addition, the amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of comprehensive income (loss) is required to be filed. This final rule was effective on November 5, 2018. The adoption of SEC Release No. 33-10532 did not have a material impact on the Company's its financial position, results of operations or cash flows.

Recently Issued Accounting Pronouncements

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU No. 2018-13"), which modifies the disclosure requirements on fair value measurements. The new guidance will become effective for the Company on January 1, 2020. Early adoption is permitted. The Company currently is evaluating the impact the adoption of ASU 2018-13 will have on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU No. 2018-15"), which clarifies the accounting for implementation costs in cloud computing arrangements. The new guidance will become effective for the Company on January 1, 2020. Early adoption is permitted. The Company is currently evaluating the impact the adoption of ASU 2018-15 will have on its consolidated financial statements.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU No. 2019-12"), makes a number of changes meant to add or clarify guidance on accounting for income taxes. The new guidance will become effective for the Company on January 1, 2022. Early adoption is permitted. The Company currently is evaluating the impact the adoption of ASU 2019-12 will have on its consolidated financial statements.

3. Fair Value Measurements

The Company did not have financial assets and liabilities measured at fair value at December 31, 2019 and 2018.

There have been no changes to the valuation methods used during the years ended December 31, 2019 and 2018. There were no transfers within the fair value hierarchy during the years ended December 31, 2019 and 2018.

The carrying values of the Company's grants receivable, accounts payable and accrued expenses approximate their fair values due to the short-term nature of these liabilities.

Tranche Rights

The Company's sales of Series B redeemable convertible preferred stock ("Series B Preferred Stock") (see Note 6) provided investors with the right to participate in a subsequent offering of Series B Preferred Stock in the event specified development milestone was achieved. The Company classified the tranche rights as a derivative liability on its consolidated balance sheet because it met the definition of a freestanding financial instrument that could have required the Company to transfer assets upon exercise. The Company remeasured the derivative liability associated with the tranche right to fair value at each reporting date, and recognized changes in the fair value of the derivative liability as a component of other income (expense) in the consolidated statements of operations and comprehensive loss.

The fair value of the derivative liability was determined using the Black-Scholes option pricing model, which considered as inputs (a) the expected stock price volatility of the underlying common stock, (b) the expected term of the tranche right, (c) the risk-free interest rate and (d) expected dividends.

The fair value of the tranche right related to the Company's Series B Preferred Stock upon issuance in June 2018 was approximately $2.1 million. Upon the issuance of Series B Preferred Stock in October 2018, the tranche right was cancelled, and the fair value of the derivative liability was $0, with the change in fair value recorded in other income (expense) in the consolidated statements of operations and comprehensive loss.

The following table provides a roll forward of the fair value of the Company's tranche right, for which fair value was determined by Level 3 inputs (in thousands):

	Tranche Right
Balance at December 31, 2017	$ —
Fair value at issuance	2,083
Change in fair value	(1,184)
Settlement	(899)
Balance at December 31, 2018	$ —

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

4. Property and Equipment

Property and equipment consist of the following at December 31, 2019 and 2018 (in thousands):

	December 31, 2019	2018
Property and equipment:		
Laboratory equipment	$ 1,715	$ 1,715
Computer software and equipment	595	572
Office furniture and fixtures	301	301
Leasehold improvements	317	317
Construction in progress	138	—
	$ 3,066	$ 2,905
Accumulated depreciation	(2,829)	(2,802)
Property and equipment, net	$ 237	$ 103

The Company recognized approximately $27,000 and $0.1 million of depreciation expense for the years ended December 31, 2019 and 2018, respectively.

5. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following (in thousands):

	December 31, 2019	2018
Payroll and employee related expenses	$ 885	$ 484
Third-party research and development expenses	1,344	180
Professional and consulting fees	901	609
Other	110	56
Total accrued expenses and other current liabilities	$3,240	$1,329

6. Redeemable Convertible Preferred Stock

On June 5, 2018, the Company filed an amended and restated certificate of incorporation which authorizes its Board of Directors to issue up to 210,786,340 shares of preferred stock, par value $0.001 per share.

On August 25, 2011, the Company filed an amended and restated certificate of incorporation to recapitalize its outstanding shares of previously outstanding Series A, Series B and Series C preferred stock into 34,017,033 shares of a new Series A-1 redeemable convertible preferred stock (“Series A-1 Preferred Stock”). As the substance of the transaction was a consolidation of the existing stockholders’ holdings into a single class of shares without conferring any substantive additional rights or obligations between the stockholders and the Company, the transaction was recorded at the then existing book value of the previously outstanding Series A, B and C preferred stock.

During 2011, the Company issued 26,680,202 shares of Series A-2 redeemable convertible preferred stock (“Series A-2 Preferred Stock”) for $0.6894 per share, in exchange for cash proceeds of approximately $13.0 million and the conversion of approximately $5.4 million of convertible promissory notes and accrued interest.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

During 2013, the Company issued 16,736,530 shares of Series A-3 redeemable convertible preferred stock ("Series A-3 Preferred Stock") for $1.2675 per share, in exchange for cash proceeds of approximately $15.0 million and the conversion of approximately $6.2 million of convertible promissory notes and accrued interest.

During 2015, the Company issued 9,205,805 shares of Series A-3 Preferred Stock for $1.2675 per share, in exchange for cash proceeds of approximately $3.3 million and the conversion of approximately $8.4 million of certain convertible promissory notes and accrued interest.

During 2016, the Company issued 4,128,152 shares of Series A-3 Preferred Stock for $1.2675 per share and 19,999,999 shares of Series A-4 redeemable convertible preferred stock ("Series A-4 Preferred Stock") for $0.30 per share, in exchange for total cash proceeds of approximately $11.2 million.

During 2018, the Company issued 98,351,953 shares of Series B Preferred Stock for $0.30 per share, in exchange for total cash proceeds of approximately $29.0 million and the conversion of approximately $0.5 million of convertible promissory notes originally issued in March and April 2018 and accrued interest.

The rights, preferences, and privileges of the Series A-1, A-2, A-3, A-4 and Series B Preferred Stock (collectively, the "Preferred Stock") are the following:

Dividends

The holders of Preferred Stock are entitled to receive dividends in any fiscal year, when, as, and if declared by the Board of Directors provided that such dividend payable on the Series B Preferred Stock shall not be lesser than the amount of any dividend to be paid on any other class or series of capital stock. The Company shall not declare or pay any cash dividends on shares of common stock until each of the holders of the Preferred Stock then outstanding shall have first received, or there shall have been declared and set aside for payment, a cash dividend on each outstanding share of Preferred Stock. No cash dividends have been declared since the Company's inception.

Voting

The holders of Preferred Stock are entitled to vote on all matters with the common stockholders as if they were one class of stock. The holders of Preferred Stock are entitled to the number of votes equal to the number of shares of common stock into which such holders' share of the Preferred Stock is then convertible.

Conversion

Each share of Preferred Stock is convertible, at the option of the holder, at any time, into one share of common stock, adjusted for certain dilutive events and per the conversion rates as defined below under "Liquidation." In addition, all shares of Preferred Stock will automatically convert into shares of common stock upon the earlier of (i) the closing of a firm commitment underwritten public offering in which the per share price to the public is not less than $2.06 per share, and which results in at least $35.0 million of gross proceeds to the Company or (ii) upon the written notice from the holders of at least 75% of the then-outstanding shares of Preferred Stock, voting together as a separate class on an as-converted basis at the then effective conversion rate. The Preferred Stock will convert at 1:1 ratio into shares of common stock.

Liquidation

In the event of any voluntary or involuntary liquidation, dissolution, or winding-up of the Company, including a change of control, as defined in its amended and restated certificate of incorporation, the holders of

the Preferred Stock will be entitled to be paid a preference payment, prior to any payment to holders of common stock or any other capital stock ranking junior on liquidation to the Preferred Stock. In the case of Series A-1 Preferred Stock, this preference payment is equal to the greater of (a) $0.4162 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series A-1 Preferred Stock would be entitled to if the shares of Series A-1 Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series A-2 Preferred Stock, this preference payment is equal to the greater of (a) $0.3397 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series A-2 Preferred Stock would be entitled to if the shares of Series A-2 Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series A-3 Preferred Stock, this preference payment is equal to the greater of (a) $0.6245 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series A-3 Preferred Stock would be entitled to if the shares of Series A-3 Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series A-4 Preferred Stock, this preference payment is equal to the greater of (a) $0.30 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series A-4 Preferred Stock would be entitled to if the shares of Series A-4 Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series B Preferred Stock, this preference payment is equal to the greater of (a) $0.30 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series B Preferred Stock would be entitled to if the shares of Series B Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company.

After the payment of all required preferential amounts to the holders of Preferred Stock, upon the dissolution, liquidation, or winding-up of the Company, any remaining assets and funds of the Company available for distribution shall be distributed among the holders of the then outstanding common stock, pro rata, according to the number of shares of common stock held by such holders.

Redemption

Series A-1, A-2 A-3, A-4 and B Preferred Stock are required to be redeemed by the Company at a price of $0.4162, $0.3397, $0.6245, $0.30 and $0.30 per share, respectively, subject to certain adjustments, as defined in its amended and restated certificate of incorporation, plus all declared but unpaid dividends in three annual installments commencing 60 days after receipt by the Company, at any time on or after June 5, 2023 (the fifth anniversary of the Series B Preferred Stock original issue date), of written notice requesting redemption of all shares of Preferred Stock from the holders of at least 75% of the then outstanding shares of Preferred Stock (which must include at least 50% of the then outstanding shares of Series B Preferred Stock).

7. Common Stock

The holders of common stock are entitled to one vote for each share held. Common stockholders are not entitled to receive dividends, unless declared by the Board of Directors.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The Company has reserved for future issuances the following shares of common stock as of December 31, 2019:

	As of December 31, 2019
Series A-1 Preferred Stock	986,466
Series A-2 Preferred Stock	773,712
Series A-3 Preferred Stock	872,031
Series A-4 Preferred Stock	579,993
Series B Preferred Stock	2,852,177
Stock options	1,176,657
Total	7,241,036

8. Stock-Based Compensation Expense

The Company adopted the 2016 Equity Incentive Plan ("2016 Plan") in February 2016. Upon adoption of the 2016 Plan, no further grants were made under the 2005 Equity Incentive Plan ("2005 Plan", together with the 2016 Plan, the "Plans"). The 2016 Plan initially provided for the grant of awards for 130,499 shares of common stock. In June 2017, the Company amended the 2016 Plan to provide for the grant of awards for a total of 411,797 shares of common stock. In June 2018, the Company amended the 2016 Plan to provide for the grant of awards for a total of 1,020,792 shares of common stock.

All of the Company's employees, officers, directors, consultants and advisors are eligible to be granted options, restricted stock, restricted stock units, and other share-based awards under the terms of the 2016 Plan. As of December 31, 2019, 384,218 shares of common stock were available for future grant under the 2016 Plan.

All stock option grants are non-statutory stock options except option grants to employees and officers intended to qualify as incentive stock options under the Internal Revenue Code of 1986, as amended. Stock options may not be granted at less than the fair market value of the Company's common stock on the date of grant. Vesting periods of awards are determined by the Board of Directors. Vesting periods of awards granted to date range from vesting upon grant to vesting over a four-year period. Vesting conditions are generally based on service provisions, whereby the awards vest over time. Additionally, the Company has granted certain awards which vest upon the achievement of certain financing and revenue milestones. Stock options granted under the Plans expire no more than 10 years from the date of grant.

Stock-based compensation expense included in the Company's statements of operations and comprehensive loss is as follows (in thousands):

	Years Ended December 31, 2019	2018
Research and development	$ 26	$ 21
General and administrative	218	385
Total	$ 244	$ 406

In the year ended December 31, 2018, the Company recorded approximately $36,000 of stock-based compensation for the award related to the achievement of a financial-based milestone. The Company did not record any stock-based compensation associated with milestone-based awards in the year ended December 31, 2019.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The fair value of each stock option granted to employees, directors and non-employees was estimated on the date of grant using the Black-Scholes option-pricing model, with the following weighted-average assumptions:

	Years Ended December 31,	
	2019	2018
Risk-free interest rate	2.2%	3.1%
Expected dividend yield	— %	— %
Expected term (in years)	6.1	6.1
Expected volatility	76.8%	80.7%

A summary of the stock option activity under the Plans for the year ended December 31, 2019 is as follows:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding December 31, 2018	553,741	$ 7.89	6.2	$ 279
Granted	310,597	3.47		
Exercised	(60,704)	1.84		
Cancelled	(11,195)	10.12		
Outstanding at December 31, 2019	792,439	$ 6.59	7.3	$ 3,363
Exercisable at December 31, 2019	409,563	$ 9.84	5.7	$ 1,254
Vested and expected to vest at December 31, 2019	792,439	$ 6.59	7.3	$ 3,363

The weighted-average fair value of options granted to employees and directors during the years ended December 31, 2019 and 2018 was $3.45 and $2.07, respectively.

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock. The total intrinsic value of options exercised during the years ended December 31, 2019 and 2018 was approximately $0.2 million and $0, respectively. The Company satisfies stock option exercises with newly issued shares of its common stock.

As of December 31, 2019, total unrecognized stock-based compensation expense relating to unvested stock options was approximately $1.0 million. This amount is expected to be recognized over a weighted-average period of 3.3 years. Additionally, as of December 31, 2019, there was approximately $36,000 of unrecognized stock-based compensation related to a stock option award related to the achievement of a revenue-based milestone. As the Company believes the achievement of the revenue-based milestone is currently not probable, it has not recorded any stock-based compensation related to this award. The Company will continue to assess the probability of achieving the revenue-based milestone at each reporting period.

9. Related Parties

The Company has consulting agreements with two of its founders who are also directors of the Company. Total consulting expense related to these consulting agreements was approximately $50,000 in each of the years ended December 31, 2019 and 2018.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The Company entered into a Contribution Agreement, Transition Services Agreement (as amended), Collaboration Agreement, Technology License Agreement and Trademark Coexistence Agreement with Arsenal Medical, Inc. ("Arsenal"), a company which shares certain common owners with the Company. During the years ended December 31, 2019 and 2018, the Company invoiced Arsenal for an aggregate of approximately $0.3 million and $1.0 million, respectively, primarily for its employee costs and its share of rent and other overhead costs. Additionally, during the year ended December 31, 2018, the Company invoiced Arsenal approximately $0.2 million for certain costs incurred in connection with Arsenal's grants with the government. The Company has reflected these billed amounts as offsets against operating expenses in the accompanying consolidated statements of operations and comprehensive loss. Of these charges, approximately $0.7 million remained unpaid as of December 31, 2018 and are included in prepaid expenses and other current assets in the accompanying consolidated balance sheet. All amounts receivable from Arsenal were collected as of December 31, 2019.

10. Income Taxes

The Company records a provision or benefit for income taxes on pre-tax income or loss based on its estimated effective tax rate for the year. During the years ended December 31, 2019 and 2018, the Company recorded net losses of approximately $16.3 million and $6.0 million, respectively, and, since it maintains a full valuation allowance on its deferred tax assets, the Company did not record an income tax benefit for the years ended December 31, 2019 and 2018.

A reconciliation of income tax expense computed at the statutory federal income tax rate to income taxes reflected in the consolidated financial statements is as follows:

	Year Ended December 31,	
	2019	2018
Income tax computed at federal statutory tax rate	21.0%	21.0%
Permanent differences	(0.2)%	2.8%
State taxes, net of federal benefit	6.2%	7.1%
Research and development and other tax credits	3.8%	3.2%
Change in deferred tax asset valuation allowance	(30.7)%	(33.3)%
Other	(0.1)%	(0.8)%
	— %	— %

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Net deferred tax assets as of December 31, 2019 and 2018 consisted of the following (in thousands):

	December 31, 2019	2018
Deferred tax assets:		
Net operating loss carryforwards	$ 30,006	$ 25,653
Research and development credits	4,652	4,036
Stock-based compensation	173	186
Operating lease liability	909	—
Other	280	269
Total gross deferred tax assets	36,020	30,144
Less: Valuation allowance	(35,150)	(30,144)
Total deferred tax assets	870	—
Deferred tax liabilities:		
Operating lease right-of-use asset	(870)	—
Total deferred tax liabilities	(870)	—
Net deferred taxes	$ —	$ —

As of December 31, 2019, the Company had U.S. federal net operating loss carryforwards of approximately $91.4 million which may be able to offset future income tax liabilities and expire at various dates through 2037 and approximately $22.9 million of federal net operating loss carryforwards that may be carried forward indefinitely. As of December 31, 2019, the Company also had state net operating loss carryforwards of approximately $95.6 million which may be available to offset future income tax liabilities and expire at various dates through 2039.

As of December 31, 2019 and 2018, the Company had federal research and development tax credit carryforwards of approximately $3.2 million and $2.7 million, respectively, available to reduce future tax liabilities which expire at various dates through 2039. As of December 31, 2019 and 2018, the Company had state research and development tax credit carryforwards of approximately $1.8 million and $1.7 million, respectively, available to reduce future tax liabilities which expire at various dates through 2034. The Company has generated research credits but has not conducted a study to document the qualified activity. This study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the deferred tax asset established for the research and development credit carryforwards and the valuation allowance.

Under the provisions of the Internal Revenue Code, the net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. Net operating loss and tax credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, respectively, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. The Company has not conducted a study to assess whether a change of control has occurred or whether there have been multiple changes of control since inception due to the significant complexity and cost

associated with such a study. If the Company has experienced a change of control, as defined by Section 382, at any time since inception, utilization of the net operating loss carryforwards or research and development tax credit carryforwards would be subject to an annual limitation under Section 382, which is determined by first multiplying the value of the Company's stock at the time of the ownership change by the applicable long-term tax-exempt rate, and then could be subject to additional adjustments, as required. Any limitation may result in expiration of a portion of the net operating loss carryforwards or research and development tax credit carryforwards before utilization. Further, until a study is completed by the Company and any limitation is known, no amounts are being presented as an uncertain tax position.

ASC 740 requires a valuation allowance to reduce the deferred tax assets reported if, based on the weight of the evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. After consideration of all the evidence, both positive and negative, the Company has recorded a valuation allowance against its deferred tax assets at December 31, 2019 and 2018 because the Company's management has determined that it is more likely than not that the Company will not recognize the benefits of its federal and state deferred tax assets primarily due to its history of cumulative net losses incurred since inception and its lack of commercialization of any products or generation of any revenue from product sales since inception and, as a result, a valuation allowance of approximately $35.2 million and $30.1 million, respectively, has been established at December 31, 2019 and 2018. Management reevaluates the positive and negative evidence at each reporting period. The valuation allowance increased by approximately $5.1 million and $2.0 million, respectively, during the years ended December 31, 2019 and 2018 due primarily to the generation of net operating losses.

The Company has recorded adjustments to deferred tax assets for unrecognized tax benefits as of December 31, 2019 and 2018. The Company's policy is to record interest and penalties related to uncertain tax positions as part of its income tax provision. As of December 31, 2019 and 2018, the Company had no accrued interest or penalties related to uncertain tax positions and no such amounts have been recognized in the Company's statement of operations and comprehensive loss. In many cases, the Company's uncertain tax positions are related to years that remain subject to examination by relevant tax authorities. The statute of limitations for federal and state tax authorities is closed for years prior to December 31, 2016. However, since the Company is in a loss carryforward position, the Company is generally subject to examination by the U.S. federal, state and local income tax authorities for all tax years in which a loss carryforward is available.

11. Leases

In August 2007, the Company entered into an operating lease, as amended, for approximately 22,343 square feet of office and laboratory space in Watertown, Massachusetts. In November 2017, the Company amended its lease ("2017 Amendment") and extended the lease term through April 2023. Initial base rent under the 2017 Amendment was approximately $1.0 million per year. The 2017 Amendment includes annual rent escalations over the term of the operating lease. The Company maintains a letter of credit of approximately $0.3 million securing its obligations under the operating lease which is secured by approximately $0.3 million of certificate of deposits, which are included as restricted cash in the consolidated balance sheets. At December 31, 2018 rent escalations are included in deferred rent in the consolidated balance sheets. Rent expense is recognized on a straight-line basis over the terms of occupancy.

The components of lease cost recorded in the Company's consolidated financial statements were as follows (in thousands):

	Year Ended December 31, 2019
Lease Cost:	
Operating lease cost	$ 1,053
Variable lease cost	727
Sublease income	(368)
Total lease cost, net	$ 1,412

Variable lease payments include the Company's allocated share of costs incurred and expenditures made by the landlord in the operation and management of the building. The Company's sublease income during the year ended December 31, 2019 related to subleases for a portion of the Company's office and lab space.

The weighted-average remaining lease term and discount rate related to the Company's operating lease were as follows:

	As of December 31, 2019
Weighted-average remaining lease term (in years)	3.3
Weighted-average discount rate	5.5%

Maturity of the Company's operating lease liability in accordance with ASC 842 as of December 31, 2019 are as follows (in thousands):

Year ending December 31,	
2020	$1,059
2021	1,091
2022	1,124
2023	379
Total maturities	3,653
Less: Amount representing interest	(327)
Present value of operating lease liability	3,326
Less: Current portion of operating lease liability	(899)
Total operating lease liability, net of current portion	$2,427

Rent expense for the year ended December 31, 2018 was approximately $0.5 million. Rent expense was net of sublease income of approximately $0.5 million for the year ended December 31, 2018.

12. Retirement Plan

The Company has a defined-contribution plan under Section 401(k) of the Internal Revenue Code ("401(k) Plan"). The 401(k) Plan covers all employees who meet defined minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. As currently established, the Company is not required to make and to date has not made any contributions to the 401(k) Plan. The Company did not make any matching contributions during the years ended December 31, 2019 and 2018.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

13. Subsequent Events

a. Capital Raise

On January 10, 2020, the Company filed an amended and restated certificate of incorporation which authorizes its Board of Directors to issue up to 299,300,288 shares of preferred stock, par value $0.001 per share, and up to 400,000,000 shares of common stock, par value $0.001 per share.

In January 2020, the Company issued 78,306,611 shares of Series C redeemable convertible preferred stock ("Series C Preferred Stock") for $0.38811 per share, in exchange for gross cash proceeds of approximately $30.4 million. In conjunction with the issuance of the Series C Preferred Stock, the Company issued warrants to purchase 681,256 shares of common stock at an exercise price of $8.63 per share.

The rights, preferences, and privileges of the Preferred Stock and Series C Preferred Stock (collectively, the "2020 Preferred Stock") are the following:

Dividends

The holders of 2020 Preferred Stock are entitled to receive dividends in any fiscal year, when, as, and if declared by the Board of Directors provided that such dividend payable on the Series C Preferred Stock and Series B Preferred Stock shall not be lesser than the amount of any dividend to be paid on any other class or series of capital stock. The Company shall not declare or pay any cash dividends on shares of common stock until each of the holders of the 2020 Preferred Stock then outstanding shall have first received, or there shall have been declared and set aside for payment, a cash dividend on each outstanding share of 2020 Preferred Stock. No cash dividends have been declared since the Company's inception.

Voting

The holders of 2020 Preferred Stock are entitled to vote on all matters with the common stockholders as if they were one class of stock. The holders of 2020 Preferred Stock are entitled to the number of votes equal to the number of shares of common stock into which such holders' share of the 2020 Preferred Stock is then convertible.

Conversion

Each share of 2020 Preferred Stock is convertible, at the option of the holder, at any time, into one share of common stock, adjusted for certain dilutive events and per the conversion rates as defined below under "Liquidation." In addition, all shares of 2020 Preferred Stock will automatically convert into shares of common stock upon the earlier of (i) the closing of a firm underwritten public offering which results in at least $40.0 million of net proceeds to the Company or (ii) the closing of a firm underwritten public offering pursuant to the Company's registration statement on Form S-1 (Reg. No. 333-236962) or (iii) upon the written notice from the holders of a majority of the then-outstanding shares of 2020 Preferred Stock, voting together as a separate class on an as-converted basis at the then effective conversion rate. The 2020 Preferred Stock will convert at 1:1 ratio into shares of common stock.

Liquidation

In the event of any voluntary or involuntary liquidation, dissolution, or winding-up of the Company, including a change of control, as defined in its amended and restated certificate of incorporation, the holders of

the 2020 Preferred Stock will be entitled to be paid a preference payment, prior to any payment to holders of common stock or any other capital stock ranking junior on liquidation to the 2020 Preferred Stock. In the case of Series A-1 Preferred Stock, (a) for the previously outstanding Series A preferred stock this preference payment is equal to the greater of (i) $0.4058 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (ii) the amount per share which the holders of the previously outstanding Series A preferred stock would be entitled to if the shares of the previously outstanding Series A had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company; (b) for the previously outstanding Series B preferred stock this preference payment is equal to the greater of (i) $0.4503 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (ii) the amount per share which the holders of the previously outstanding Series B preferred stock would be entitled to if the shares of the previously outstanding Series B had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company; and (c) for the previously outstanding Series C preferred stock this preference payment is equal to the greater of (i) $0.4002 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (ii) the amount per share which the holders of the previously outstanding Series C preferred stock would be entitled to if the shares of the previously outstanding Series C had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series A-2 Preferred Stock, this preference payment is equal to the greater of (a) $0.3397 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series A-2 Preferred Stock would be entitled to if the shares of Series A-2 Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series A-3 Preferred Stock, this preference payment is equal to the greater of (a) $0.6245 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series A-3 Preferred Stock would be entitled to if the shares of Series A-3 Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series A-4 Preferred Stock, this preference payment is equal to the greater of (a) $0.30 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series A-4 Preferred Stock would be entitled to if the shares of Series A-4 Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series B Preferred Stock, this preference payment is equal to the greater of (a) $0.30 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series B Preferred Stock would be entitled to if the shares of Series B Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company. In the case of Series C Preferred Stock, this preference payment is equal to the greater of (a) $0.38811 per share, subject to certain adjustments, as defined, plus any dividends declared but unpaid on such shares, or (b) the amount per share which the holders of Series C Preferred Stock would be entitled to if the shares of Series C Preferred Stock had been converted into shares of common stock immediately prior to such voluntary or involuntary liquidation, dissolution, or winding-up of the Company.

After the payment of all required preferential amounts to the holders of 2020 Preferred Stock, upon the dissolution, liquidation, or winding-up of the Company, any remaining assets and funds of the Company available for distribution shall be distributed among the holders of the then outstanding common stock, pro rata, according to the number of shares of common stock held by such holders.

LYRA THERAPEUTICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Redemption

Series A-1, A-2 A-3, A-4, B and C Preferred Stock are required to be redeemed by the Company at a price of $0.4162, $0.3397, $0.6245, $0.30, $0.30 and $0.38811 per share, respectively, subject to certain adjustments, as defined in its amended and restated certificate of incorporation, plus all declared but unpaid dividends in three annual installments commencing 60 days after receipt by the Company, at any time on or after January 10, 2025 (the fifth anniversary of the Series C Preferred Stock original issue date), of written notice requesting redemption of all shares of 2020 Preferred Stock from the holders of a majority of the then outstanding shares of 2020 Preferred Stock (which must include at least 50% of the then outstanding shares of Series B Preferred Stock and 50% of the then outstanding shares of Series C Preferred Stock).

b. COVID-19 Pandemic and CARES Act

On January 30, 2020, the World Health Organization ("WHO") announced a global health emergency because of a new strain of coronavirus originating in Wuhan, China (the "COVID-19 outbreak") and the risks to the international community as the virus spreads globally beyond its point of origin. On March 11, 2020, the WHO classified the COVID-19 outbreak as a pandemic, based on the rapid increase in exposure globally. The COVID-19 pandemic is affecting the United States and global economies and may affect the Company's operations and those of third parties on which the Company relies, including by causing disruptions in the supply of the Company's product candidates and the conduct of current and future clinical trials. In addition, the COVID-19 pandemic may affect the operations of the Food and Drug Administration and other health authorities, which could result in delays of reviews and approvals, including with respect to the Company's product candidates. Additionally, while the potential economic impact brought by, and the duration of, the COVID-19 pandemic is difficult to assess or predict, the impact of the COVID-19 pandemic on the global financial markets may reduce the Company's ability to access capital, which could negatively impact the Company's short-term and long-term liquidity. The ultimate impact of the COVID-19 pandemic is highly uncertain and subject to change. The Company does not yet know the full extent of potential delays or impacts on its business, financing or clinical trial activities or on healthcare systems or the global economy as a whole. However, these effects could have a material impact on the Company's liquidity, capital resources, operations and business and those of the third parties on which the Company relies.

On March 27, 2020, President Trump signed into law the "Coronavirus Aid, Relief, and Economic Security (CARES) Act." The CARES Act, among other things, includes provisions relating to refundable payroll tax credits, deferment of employer side social security payments, net operating loss carryback periods, alternative minimum tax credit refunds, modifications to the net interest deduction limitations, increased limitations on qualified charitable contributions, and technical corrections to tax depreciation methods for qualified improvement property. It also appropriated funds for the SBA Paycheck Protection Program loans that are forgivable in certain situations to promote continued employment, as well as Economic Injury Disaster Loans to provide liquidity to small businesses harmed by COVID-19. Currently, the Company does not anticipate the need to obtain funding from such loans. The Company continues to examine the impact that the CARES Act may have on their business. Currently, the Company is unable to determine the impact that the CARES Act will have on their financial condition, results of operations, or liquidity.

c. Reverse stock split

The Company's Board of Directors approved a one-for-34.483 reverse stock split of its issued and outstanding common stock and stock options and a proportional adjustment to the existing conversion ratios for the Company's redeemable convertible preferred stock pursuant to an amendment to the Company's amended and restated certificate of incorporation effective as of April 27, 2020. Accordingly, all common stock shares, per share amounts, and additional paid in capital amounts for all periods presented in the accompanying consolidated financial statements and notes thereto have been retroactively adjusted, where applicable, to reflect the reverse stock split. In addition, pursuant to the same amendment, the number of authorized shares of common stock was reduced to 200,000,000 shares.

Through and including , 2020, (the 25th day after the date of this prospectus), all dealers effecting transactions in the Common Stock, 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 an unsold allotment or subscription.

3,500,000 Shares

Common Stock

PROSPECTUS

BofA Securities

Jefferies

William Blair

BTIG

, 2020

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 Securities and Exchange Commission registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and the Nasdaq listing fee.

	Amount
Securities and Exchange Commission registration fee	$ 8,360
FINRA filing fee	10,160
Nasdaq initial listing fee	150,000
Accountants' fees and expenses	300,000
Legal fees and expenses	1,700,000
Blue Sky fees and expenses	15,000
Transfer Agent's fees and expenses	4,500
Printing and engraving expenses	285,000
Miscellaneous	121,980
Total expenses	$ 2,595,000

Item 14. Indemnification of Directors and Officers.

Section 102 of the General Corporation Law of the State of Delaware 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 restated certificate of incorporation provides 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 General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware 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.

Our restated certificate of incorporation provides that 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 restated certificate of incorporation provides 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 favour 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.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

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.

Set forth below is information regarding shares of capital stock issued by the registrant within the past two years. Also included is the consideration received by us for such shares and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed.

(a) Issuance of Capital Stock.

Since January 1, 2017, the registrant issued (i) an aggregate of 98,351,953 shares of Series B preferred stock for an aggregate consideration of approximately $29.5 million to accredited investors, and (ii) an aggregate of 78,306,611 shares of our Series C preferred stock for an aggregate consideration of approximately $30.4 million to accredited investors, in each case, pursuant to Section 4(a)(2) of the Securities Act and Rule 506 as a transaction not involving a public offering.

(b) Equity Grants.

Since January 1, 2017, the registrant granted stock options to purchase an aggregate of 850,395 shares of its common stock, at a weighted average exercise price per share of $3.32, to employees, non-employees and directors in connection with services provided to the registrant by such parties.

In April 2020, the registrant granted stock options to purchase an aggregate of 494,716 shares of common stock, which will become effective in connection with this offering, to certain of the registrant's directors, executive officers and employees, at an exercise price per share equal to the initial public offering price in this offering in connection with services provided to the registrant.

The issuances of such stock options, the shares of common stock issuable upon the exercise of such options and such restricted shares of common stock were issued pursuant to written compensatory plans or arrangements with the registrant's employees, directors and consultants, in reliance on the exemption provided by Rule 701 promulgated under the Securities Act, or pursuant to Section 4(a)(2) under the Securities Act, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required.

(c) Warrants

Since January 1, 2017, the registrant issued warrants to purchase up to an aggregate of 681,256 shares of common stock to accredited investors pursuant to Section 4(a)(2) of the Securities Act and Rule 506 as a transaction not involving a public offering.

(d) Issuance of Notes

On March 14, 2018, the registrant issued up to $500,000 in aggregate principal amount of convertible promissory notes to accredited investors pursuant to Section 4(a)(2) of the Securities Act as a transaction not involving a public offering. On June 5, 2018, upon the closing of the Series B preferred stock financing, these convertible promissory notes, as well as accrued interest thereon, converted into 1,685,297 shares of Series B preferred stock.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

Exhibit Number	Description of Exhibit
1.1	Form of Underwriting Agreement
3.1	Certificate of Incorporation of the Registrant, as amended (currently in effect)
3.2*	Bylaws of the Registrant (currently in effect)
3.3	Form of Restated Certificate of Incorporation of the Registrant (to be effective upon the closing of this offering)
3.4	Form of Restated Bylaws of the Registrant (to be effective upon the closing of this offering)
4.1*	Eighth Amended and Restated Investor Rights Agreement, dated as of January 10, 2020
4.2	Form of Stock Certificate evidencing the shares of common stock
4.3	Form of Warrants to Purchase Common Stock, dated various dates, issued by the Registrant to various investors, together with a schedule of warrants and warrantholders
5.1	Opinion of Latham & Watkins LLP
10.1#*	2005 Equity Incentive Plan, as amended, and form of agreements thereunder
10.2#*	2016 Equity Incentive Plan, as amended, and form of agreements thereunder
10.3#	2020 Incentive Award Plan and form of agreements thereunder
10.4#	Non-Employee Director Compensation Program
10.5#	2020 Employee Stock Purchase Plan
10.6#	Form of Indemnification Agreement for directors and officers of the Registrant
10.7*	Lease Agreement between the Registrant and ARE-480 Arsenal St, LLC, dated August 14, 2007, as amended
10.8#	Employment Agreement between the Registrant and Maria Palasis, Ph.D.
10.9#	Offer Letter between the Registrant and R. Don Elsey
10.10#	Offer Letter between the Registrant and Laura Edgerly-Pflug
21.1*	Subsidiaries of the Registrant
23.1	Consent of BDO USA, LLP
23.2	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included on signature page)

* Previously filed.

\# Indicates management contract or compensatory plan.

(b) Financial Statement Schedules. Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriter, at the closing 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.

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 Securities 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 and will be governed by the final adjudication of such issue.

The undersigned hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, 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.

(2) For the purpose of determining any liability under the Securities Act of 1933, 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, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Watertown, Commonwealth of Massachusetts, on this 27th day of April, 2020.

LYRA THERAPEUTICS, INC.

By: /s/ Maria Palasis, Ph.D.
Maria Palasis, Ph.D.
President and Chief Executive Officer

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
/s/ Maria Palasis, Ph.D. Maria Palasis, Ph.D.	President, Chief Executive Officer and Director (principal executive officer)	April 27, 2020
/s/ R. Don Elsey R. Don Elsey	Chief Financial Officer (principal financial officer and principal accounting officer)	April 27, 2020
* Michael Altman	Director	April 27, 2020
* Edward Anderson	Director	April 27, 2020
* Robert S. Langer, Sc.D.	Director	April 27, 2020
* C. Ann Merrifield	Director	April 27, 2020

Signature	Title	Date
*	Director	April 27, 2020
Konstantin Poukalov		
*	Director	April 27, 2020
W. Bradford Smith		
*	Director	April 27, 2020
George Whitesides, Ph.D.		

*By: /s/ R. Don Elsey
R. Don Elsey
Attorney-in-Fact

Exhibit 1.1

LYRA THERAPEUTICS, INC.

(a Delaware corporation)

[●] Shares of Common Stock

UNDERWRITING AGREEMENT

Dated: [●], 2020

LYRA THERAPEUTICS, INC.

(a Delaware corporation)

[●] Shares of Common Stock

UNDERWRITING AGREEMENT

[●], 2020

BofA Securities, Inc.
Jefferies LLC
William Blair & Company, L.L.C.

as Representatives of the several Underwriters

c/o BofA Securities, Inc.
One Bryant Park
New York, New York 10036

c/o Jefferies LLC
520 Madison Avenue
New York, New York 10022

c/o William Blair & Company, L.L.C.
150 North Riverside Plaza
Chicago, Illinois 60606

Ladies and Gentlemen:

Lyra Therapeutics, Inc., a Delaware corporation (the "Company"), confirms its agreement with BofA Securities, Inc. ("BofAS"), Jefferies LLC ("Jefferies") and William Blair & Company, L.L.C. ("William Blair") and each of the other Underwriters named in Schedule A hereto (collectively, the "Underwriters," which term shall also include any underwriter substituted as hereinafter provided in Section 10 hereof), for whom BofAS, Jefferies and William Blair are acting as representatives (in such capacity, the "Representatives"), with respect to (i) the sale by the Company and the purchase by the Underwriters, acting severally and not jointly, of the respective numbers of shares of Common Stock, par value $0.001 per share, of the Company ("Common Stock") set forth in Schedule A hereto and (ii) the grant by the Company to the Underwriters, acting severally and not jointly, of the option described in Section 2(b) hereof to purchase all or any part of [●] additional shares of Common Stock. The aforesaid [●] shares of Common Stock (the "Initial Securities") to be purchased by the Underwriters and all or any part of the [●] shares of Common Stock subject to the option described in Section 2(b) hereof (the "Option Securities") are herein called, collectively, the "Securities."

The Company understands that the Underwriters propose to make a public offering of the Securities as soon as the Representatives deem advisable after this Underwriting Agreement (this "Agreement") has been executed and delivered.

The Company has filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-1 (No. 333-236962), including the related preliminary prospectus or prospectuses, covering the registration of the sale of the Securities under the Securities Act of 1933, as amended (the "1933 Act"). Promptly after execution and delivery of this Agreement, the Company will prepare and file a prospectus in accordance with the provisions of Rule 430A ("Rule 430A") of the rules and regulations of the Commission under the 1933 Act (the "1933 Act Regulations") and Rule 424(b) ("Rule 424(b)") of the 1933 Act Regulations. The information included in such prospectus that was omitted from such registration statement at the time it became effective but that is deemed to be part of such registration statement at the time it became effective pursuant to Rule 430A(b) is herein called the "Rule 430A Information." Such registration statement, including the amendments thereto, the exhibits thereto and any schedules thereto, at the time it became effective, and including the Rule 430A Information, is herein called the "Registration Statement." Any registration statement filed pursuant to Rule 462(b) of the 1933 Act Regulations is herein called the "Rule 462(b) Registration Statement" and, after such filing, the term "Registration Statement" shall include the Rule 462(b) Registration Statement. Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a "preliminary prospectus." The final prospectus, in the form first furnished to the Underwriters for use in connection with the offering of the Securities, is herein called the "Prospectus." For purposes of this Agreement, all references to the Registration Statement, any preliminary prospectus, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval system or any successor system ("EDGAR").

As used in this Agreement:

"Applicable Time" means [●]:00 [P./A.]M., New York City time, on [●], 2020 or such other time as agreed by the Company and BofAS.

"General Disclosure Package" means any Issuer General Use Free Writing Prospectuses issued at or prior to the Applicable Time, the most recent preliminary prospectus that is distributed to investors prior to the Applicable Time and the information included on Schedule B-1 hereto, all considered together.

"Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433 of the 1933 Act Regulations ("Rule 433"), including without limitation any "free writing prospectus" (as defined in Rule 405 of the 1933 Act Regulations ("Rule 405")) relating to the Securities that is (i) required to be filed with the Commission by the Company, (ii) a "road show that is a written communication" within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Securities or of the offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g).

"Issuer General Use Free Writing Prospectus" means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a "*bona fide* electronic road show," as defined in Rule 433 (the "Bona Fide Electronic Road Show")), as evidenced by its being specified in Schedule B-2 hereto.

"Issuer Limited Use Free Writing Prospectus" means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

"Testing-the-Waters Communication" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the 1933 Act.

"Written Testing-the-Waters Communication" means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the 1933 Act.

SECTION 1. Representations and Warranties.

(a) *Representations and Warranties by the Company*. The Company represents and warrants to each Underwriter as of the date hereof, the Applicable Time, the Closing Time (as defined below) and any Date of Delivery (as defined below), and agrees with each Underwriter, as follows:

(i) Registration Statement and Prospectuses. Each of the Registration Statement and any amendment thereto has become effective under the 1933 Act. No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated. The Company has complied with each request (if any) from the Commission for additional information.

Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus, the Prospectus and any amendment or supplement thereto, at the time each was filed with the Commission, and, in each case, at the Applicable Time, the Closing Time and any Date of Delivery complied and will comply in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus delivered to the Underwriters for use in connection with this offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(ii) Accurate Disclosure. Neither the Registration Statement nor any amendment thereto, at its effective time, on the date hereof, at the Closing Time or at any Date of Delivery, contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. At the Applicable Time and any Date of Delivery, none of (A) the General Disclosure Package, (B) any individual Issuer Limited Use Free Writing Prospectus, when considered together with the General Disclosure Package and (C) any individual Written Testing-the-Waters Communication, when considered together with the General Disclosure Package, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. Neither the Prospectus nor any amendment or supplement thereto, as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b), at the Closing Time or at any Date of Delivery, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

The representations and warranties in this subsection shall not apply to statements in or omissions from the Registration Statement (or any amendment thereto), the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through the Representatives expressly for use therein. For purposes of this Agreement, the only information so furnished shall be the information in the first paragraph under the heading "Underwriting–Commissions and Discounts," the information in the second, third and fourth paragraphs under the heading "Underwriting–Price Stabilization, Short Positions and Penalty Bids" and the information under the heading "Underwriting–Electronic Distribution" in each case contained in the Prospectus (collectively, the "Underwriter Information").

(iii) Issuer Free Writing Prospectuses. No Issuer Free Writing Prospectus conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, and any preliminary or other prospectus deemed to be a part thereof that has not been superseded or modified. The Company has made available a Bona Fide Electronic Road Show in compliance with Rule 433(d)(8)(ii) such that no filing of any "road show" (as defined in Rule 433(h)) is required in connection with the offering of the Securities.

(iv) Testing-the-Waters Materials. The Company (A) has not engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Representatives with entities that are qualified institutional buyers within the meaning of Rule 144A under the 1933 Act or institutions that are accredited investors within the meaning of Rule 501 under the 1933 Act and (B) has not authorized anyone other than the Representatives to engage in Testing-the-Waters Communications. The Company reconfirms that the Representatives have been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule B-3 hereto.

(v) Company Not Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendment thereto, at the earliest time thereafter that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) of the 1933 Act Regulations) of the Securities and at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405, without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

(vi) Emerging Growth Company Status. From the time of the initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly or through any individual or entity ("Person") authorized to act on its behalf in any Testing-the-Waters Communication) through the date hereof, the Company has been and is an "emerging growth company," as defined in Section 2(a) of the 1933 Act (an "Emerging Growth Company").

(vii) Independent Accountants. The accountants who certified the financial statements and supporting schedules included in the Registration Statement, the General Disclosure Package and the Prospectus are independent public accountants as required by the 1933 Act, the 1933 Act Regulations and the Public Company Accounting Oversight Board.

(viii) Financial Statements. The financial statements included in the Registration Statement, the General Disclosure Package and the Prospectus, together with the related schedules and notes, present fairly, in all material respects, the financial position of the Company and its consolidated subsidiaries at the dates indicated and the statement of operations, stockholders' equity and cash flows of the Company and its consolidated subsidiaries for the periods specified; said financial statements have been prepared in conformity with U.S. generally

accepted accounting principles ("GAAP") applied on a consistent basis throughout the periods involved. The supporting schedules, if any, present fairly, in all material respects, in accordance with GAAP the information required to be stated therein. The selected financial data and the summary financial information included in the Registration Statement, the General Disclosure Package and the Prospectus present fairly, in all material respects, the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included in the Registration Statement, the General Disclosure Package or the Prospectus under the 1933 Act or the 1933 Act Regulations.

(ix) No Material Adverse Change in Business. Except as otherwise stated therein, since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, (A) there has been no material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business (a "Material Adverse Effect"), (B) there have been no transactions entered into by the Company or any of its subsidiaries, other than those in the ordinary course of business, which are material with respect to the Company and its subsidiaries considered as one enterprise, and (C) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

(x) Good Standing of the Company. The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the State of Delaware and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus and to enter into and perform its obligations under this Agreement; and the Company is duly qualified as a foreign corporation to transact business and is in good standing in each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect.

(xi) Good Standing of Subsidiaries. Each "significant subsidiary" of the Company (as such term is defined in Rule 1-02 of Regulation S-X) (each, a "Subsidiary" and, collectively, the "Subsidiaries") has been duly organized and is validly existing in good standing under the laws of the jurisdiction of its incorporation or organization, has corporate or similar power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to so qualify or to be in good standing would not, singly or in the aggregate, result in a Material Adverse Effect. Except as otherwise disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, all of the issued and outstanding capital stock of each Subsidiary has been duly authorized and validly issued, is fully paid and non-assessable and is owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity. None of the outstanding shares of capital stock of any Subsidiary were issued in violation of the preemptive or similar rights of any securityholder of such Subsidiary. The only subsidiaries of the Company are the subsidiaries listed on Exhibit 21 to the Registration Statement.

(xii) Capitalization. The authorized, issued and outstanding shares of capital stock of the Company are as set forth in the Registration Statement, the General Disclosure Package and the Prospectus in the column entitled "Actual" under the caption "Capitalization" (except for subsequent issuances, if any, pursuant to this Agreement, pursuant to reservations, agreements or employee benefit plans referred to in the Registration Statement, the General Disclosure Package and the Prospectus or pursuant to the exercise of convertible securities, options or warrants referred to in the Registration Statement, the General Disclosure Package and the Prospectus or pursuant to the automatic conversions of preferred stock of the Company into shares of Common Stock as a result of the public offering contemplated hereby as described in the Registration Statement, the General Disclosure Package and the Prospectus). The outstanding shares of capital stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable. None of the outstanding shares of capital stock of the Company were issued in violation of the preemptive or other similar rights of any securityholder of the Company.

(xiii) Authorization of Agreement. This Agreement has been duly authorized, executed and delivered by the Company.

(xiv) Authorization and Description of Securities. The Securities to be purchased by the Underwriters from the Company have been duly authorized for issuance and sale to the Underwriters pursuant to this Agreement and, when issued and delivered by the Company pursuant to this Agreement against payment of the consideration set forth herein, will be validly issued and fully paid and non-assessable; and the issuance of the Securities is not subject to the preemptive or other similar rights of any securityholder of the Company. The Common Stock conforms in all material respects to all statements relating thereto contained in the Registration Statement, the General Disclosure Package and the Prospectus and such description conforms in all material respects to the rights set forth in the instruments defining the same. No holder of Securities will be subject to personal liability solely by reason of being such a holder.

(xv) Registration Rights. There are no persons with registration rights or other similar rights to have any securities registered for sale pursuant to the Registration Statement or otherwise registered for sale or sold by the Company under the 1933 Act pursuant to this Agreement, other than those rights that have been disclosed in the Registration Statement, the General Disclosure Package and the Prospectus and have been waived.

(xvi) Absence of Violations, Defaults and Conflicts. Neither the Company nor any of its subsidiaries is (A) in violation of its charter, by-laws or similar organizational document, (B) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound or to which any of the properties or assets of the Company or any subsidiary is subject (collectively, "Agreements and Instruments"), except for such defaults that would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect, or (C) in violation of any law, statute, rule, regulation, judgment, order, writ or decree of any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency having jurisdiction over the Company or any of its subsidiaries or any of their respective properties, assets or operations (each, a "Governmental Entity"), except for such violations that would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated herein and in the Registration Statement, the General Disclosure Package and the Prospectus (including the issuance and sale of the Securities and the use of the proceeds from the sale of the Securities as described therein under the caption

"Use of Proceeds") and compliance by the Company with its obligations hereunder have been duly authorized by all necessary corporate action and do not and will not, whether with or without the giving of notice or passage of time or both, conflict with or constitute a breach of, or default or Repayment Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or any subsidiary pursuant to, the Agreements and Instruments (except for such conflicts, breaches, defaults or Repayment Events or liens, charges or encumbrances that would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect), nor will such action result in any violation of (x) the provisions of the charter, by-laws or similar organizational document of the Company or (y) any of its subsidiaries or any law, statute, rule, regulation, judgment, order, writ or decree of any Governmental Entity, except with respect to clause (y), such violations as would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect. As used herein, a "Repayment Event" means any event or condition which gives the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(xvii) Absence of Labor Dispute. Except as would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect, (a) no labor dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is imminent, and (b) to the Company's knowledge, there is no existing or imminent labor disturbance by the employees of any of its or any subsidiary's principal suppliers, manufacturers, customers or contractors.

(xviii) Absence of Proceedings. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, there is no action, suit, proceeding, inquiry or investigation before or brought by any Governmental Entity (including, without limitation, any action, suit, proceeding, inquiry or investigation before or brought by the U.S. Food and Drug Administration (the "FDA") or the European Medicines Agency (the "EMA")) now pending or, to the knowledge of the Company, threatened, against or affecting the Company or any of its subsidiaries, which would reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect, or which would reasonably be expected to, singly or in the aggregate, materially and adversely affect their respective properties or assets or the consummation of the transactions contemplated in this Agreement or the performance by the Company of its obligations hereunder; and the aggregate of all pending legal or governmental actions, suits, inquiries, investigations or proceedings to which the Company or any such subsidiary is a party or of which any of their respective properties or assets is the subject which are not described in the Registration Statement, the General Disclosure Package and the Prospectus, including ordinary routine litigation incidental to the business, would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect.

(xix) Accuracy of Exhibits. There are no contracts or documents which are required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or to be filed as exhibits to the Registration Statement which have not been so described and filed as required.

(xx) Absence of Further Requirements. No filing with, or authorization, approval, consent, license, order, registration, qualification or decree of, any Governmental Entity is necessary or required for the performance by the Company of its obligations hereunder, in connection with the offering, issuance or sale of the Securities hereunder or the consummation of the transactions contemplated by this Agreement, except such as have been already obtained or as may be required under the 1933 Act, the 1933 Act Regulations, the rules of the Nasdaq Global Market, state securities laws or the rules of FINRA.

(xxi) Possession of Licenses and Permits. The Company and its subsidiaries possess such permits, licenses, approvals, consents and other authorizations issued by the appropriate Governmental Entities necessary to conduct the business now operated by them (including, without limitation, all such permits, licenses, approvals, consents and other authorizations required by the FDA, the EMA, or any other federal, state, local or foreign agencies or bodies engaged in the regulation of clinical trials, pharmaceutical products, medical devices or activities related to the business now operated by the Company and its subsidiaries) (collectively, "Governmental Licenses"), except where the failure so to possess would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect. The Company and its subsidiaries are in compliance with the terms and conditions of all Governmental Licenses, except where the failure so to comply would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect. All of the Governmental Licenses are valid and in full force and effect, except when the invalidity of such Governmental Licenses or the failure of such Governmental Licenses to be in full force and effect would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect. Neither the Company nor any of its subsidiaries has received any notice of proceedings relating to the revocation or modification of any Governmental Licenses which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would reasonably be expected to result in a Material Adverse Effect. The Company and its subsidiaries (i) are, and at all times have been, in compliance with all statutes, rules and regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, storage, import, export or disposal of any product manufactured or distributed by them ("Applicable Laws"), except where such noncompliance would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect; and (ii) have not received any FDA Form 483, written notice of adverse finding, warning letter, untitled letter or other correspondence or written notice from any court or arbitrator or governmental or regulatory authority alleging or asserting noncompliance with (x) any Applicable Laws or (y) any Governmental Licenses required by any such Applicable Laws, except where being in contravention of any of the foregoing representations or warranties, singly or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect.

(xxii) Title to Property. The Company and its subsidiaries have good and marketable title to all real property owned by them and good title to all other properties owned by them, in each case, free and clear of all mortgages, pledges, liens, security interests, claims, restrictions or encumbrances of any kind except such as (A) are described in the Registration Statement, the General Disclosure Package and the Prospectus or (B) do not, singly or in the aggregate, materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company or any of its subsidiaries; and all of the leases and subleases material to the business of the Company and its subsidiaries, considered as one enterprise, and under which the Company or any of its subsidiaries holds properties described in the Registration Statement, the General Disclosure Package or the Prospectus, are in full force and effect, and neither the Company nor any such subsidiary has any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(xxiii) Possession of Intellectual Property. With regards to each sentence of this Section 1(a)(xxiii), other than as would not reasonably be expected, singly or in the aggregate, to result in a Material Adverse Effect: The Company and its subsidiaries own or possess, have a valid license to, or can acquire on reasonable terms, all patents, patent applications, statutory invention rights, community designs, invention disclosures, rights in utility models and industrial designs, inventions, registered and unregistered copyrights (including copyrights in software), intellectual property rights in technology and software, data, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, business names, trade names, logos, slogans, trade dress, design rights, Internet domain names, social media accounts, any other designations of source or origin, and any applications (including provisional applications), registrations, or renewals for any of the foregoing, together with the goodwill associated with any of the foregoing, rights to publicity and privacy and/or other intellectual property (collectively, "Intellectual Property") necessary to carry on the business now operated by them and as currently proposed to be conducted as described in the Registration Statement, the General Disclosure Package and the Prospectus. (i) Neither the Company nor any of its subsidiaries has received any notice of nor has engaged in any infringement, misappropriation or other violation of or conflict regarding any Intellectual Property of any third party, (ii) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim regarding the subject matter of the foregoing and (iii) the Company and its subsidiaries are unaware of any facts which would form a reasonable basis for any such claim. (a) To the knowledge of the Company, all Intellectual Property owned by or exclusively licensed to the Company or any of its subsidiaries (such Intellectual Property, the "Company Intellectual Property") is valid, subsisting and enforceable, (b) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by any third party challenging the validity, ownership, registrability, enforceability or scope of any such Company Intellectual Property and (c) the Company is unaware of any facts which would form a reasonable basis for any such claim. No third party, to the knowledge of the Company, is infringing, misappropriating or otherwise violating any of the Company Intellectual Property and there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by the Company or any of its subsidiaries against a third party regarding the foregoing. (1) The Company and its subsidiaries have complied with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or its subsidiaries, (2) neither the Company nor any of its subsidiaries has received any written notice alleging any such noncompliance and are unaware of any facts which would form a reasonable basis for any such claim, and (3) all such agreements are in full force and effect. All Company Intellectual Property has been duly maintained and is in full force and effect and there are no defects in any of the Company Intellectual Property. Each person who is or was an employee or contractor of the Company or any of its subsidiaries and who is or was involved in the creation or development of any Intellectual Property for or on behalf of the Company has executed a valid agreement containing an assignment to the Company or any of its subsidiaries of such person's rights in and to such Intellectual Property and, to the knowledge of the Company, no employee of the Company or any of its subsidiaries is in or has ever been in violation of any term of any agreement with or covenant to a former employer where the basis of such violation relates to such employee's employment with the Company or any of its subsidiaries or actions undertaken by the employee while employed with the Company or any of its subsidiaries. The Company has taken all reasonable steps necessary to maintain and protect the confidentiality of the trade secrets and other confidential Intellectual Property used in connection with the business of the Company and its subsidiaries and the confidentiality of such trade secrets and confidential Intellectual Property has not been compromised or disclosed to or accessed by any third party except pursuant to appropriate nondisclosure and confidentiality agreements.

(xxiv) Environmental Laws. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus or would not, singly or in the aggregate, result in a Material Adverse Effect, (A) neither the Company nor any of its subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products, asbestos-containing materials or mold (collectively, "Hazardous Materials") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "Environmental Laws"), (B) the Company and its subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements, (C) there are no pending or, to the knowledge of the Company, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigations or proceedings relating to any Environmental Law against the Company or any of its subsidiaries and (D) there are no events or circumstances that would reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or Governmental Entity, against or affecting the Company or any of its subsidiaries relating to Hazardous Materials or any Environmental Laws.

(xxv) Accounting Controls. The Company and each of its subsidiaries maintain effective internal control over financial reporting (as defined under Rules 13-a15 and 15d-15 under the rules and regulations of the Commission (the "1934 Act Regulations") under the Securities Exchange Act of 1934, as amended (the "1934 Act")) and a system of internal accounting controls sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; and (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (1) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (2) no change in the Company's internal control over financial reporting that has materially and adversely affected, or is reasonably likely to materially and adversely affect, the Company's internal control over financial reporting.

(xxvi) Compliance with the Sarbanes-Oxley Act. The Company has taken all necessary actions to ensure that, upon the effectiveness of the Registration Statement, it will be in compliance in all material respects with all provisions of the Sarbanes-Oxley Act of 2002 and all rules and regulations promulgated thereunder or implementing the provisions thereof (the "Sarbanes-Oxley Act") that are then in effect and with which the Company is required to comply as of the effectiveness of the Registration Statement, and is taking reasonable steps to enable it to be in compliance with other provisions of the Sarbanes-Oxley Act not currently in effect, upon the effectiveness of such provisions, or which will become applicable to the Company at all times after the effectiveness of the Registration Statement.

(xxvii) Payment of Taxes. All United States federal, state and local income tax returns of the Company and its subsidiaries required by law to be filed have been filed and all taxes shown by such returns or otherwise assessed, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided in accordance with GAAP by the Company. The United States federal, state and local income tax returns of the Company and its subsidiaries through the fiscal year ended December 31, 2018 have been settled and no assessment in connection therewith has been made against the Company or its subsidiaries, as applicable. The Company and its subsidiaries have filed all other tax returns that are required to have been filed by them pursuant to applicable foreign, state, local or other law except insofar as the failure to file such returns would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect, and has paid all taxes due pursuant to such returns or pursuant to any assessment received by the Company and its subsidiaries, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been established by the Company. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not, singly or in the aggregate, result in a Material Adverse Effect.

(xxviii) Insurance. The Company and its subsidiaries carry or are entitled to the benefits of insurance, with financially sound and reputable insurers, in such amounts and covering such risks as is generally maintained by similarly sized companies of established repute engaged in the same or similar business, and all such insurance is in full force and effect. The Company has no reason to believe that it or any of its subsidiaries will not be able (A) to renew its existing insurance coverage as and when such policies expire or (B) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect. Neither of the Company nor any of its subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

(xxix) Investment Company Act. The Company is not required, and upon the issuance and sale of the Securities as herein contemplated and the application of the net proceeds therefrom as described in the Registration Statement, the General Disclosure Package and the Prospectus will not be required, to register as an “investment company” under the Investment Company Act of 1940, as amended (the “1940 Act”).

(xxx) Absence of Manipulation. None of the Company or any controlled affiliate, or to the knowledge of the Company, any non-controlled affiliate has taken, nor will the Company or any controlled affiliate, or to the knowledge of the Company, any non-controlled affiliate, take, directly or indirectly, any action which is designed, or would be expected, to cause or result in, or which constitutes, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or to result in a violation of Regulation M under the 1934 Act.

(xxxi) Foreign Corrupt Practices Act. None of the Company, any of its subsidiaries or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or any of its subsidiaries is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the “FCPA”), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any “foreign official” (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign

political office, in contravention of the FCPA and the Company and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(xxxii) Money Laundering Laws. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(xxxiii) OFAC. None of the Company, any of its subsidiaries or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or representative of the Company or any of its subsidiaries is a Person currently the subject or target of any sanctions administered or enforced by the United States Government, including, without limitation, the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC"), the United Nations Security Council ("UNSC"), the European Union, Her Majesty's Treasury ("HMT"), or other relevant sanctions authority (collectively, "Sanctions"), nor is the Company located, organized or resident in a country or territory that is the subject of Sanctions; and the Company will not directly or indirectly use the proceeds of the sale of the Securities, or lend, contribute or otherwise make available such proceeds to any subsidiaries, joint venture partners or other Person, to fund any activities of or business with any Person, or in any country or territory, that, at the time of such funding, is the subject of Sanctions or in any other manner that will result in a violation by any Person (including any Person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions.

(xxxiv) Lending Relationship. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company (i) does not have any material lending or other relationship with any bank or lending affiliate of any Underwriter and (ii) does not intend to use any of the proceeds from the sale of the Securities to repay any outstanding debt owed to any affiliate of any Underwriter.

(xxxv) Statistical and Market-Related Data. Any statistical and market-related data included in the Registration Statement, the General Disclosure Package or the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate in all material respects and, to the extent required, the Company has obtained the written consent to the use of such data from such sources.

(xxxvi) Cybersecurity and Data Protection. Except as would not, singly or in the aggregate, have or reasonably be expected to have a Material Adverse Effect: (A) there has been no security breach or incident, unauthorized access or disclosure, or other compromise of or relating to the Company's or its subsidiaries' information technology and computer systems, networks, hardware, software, data and databases (including the data and information of their respective customers, employees, suppliers, vendors and any third party data maintained, processed or stored by the Company or its subsidiaries, and any such data processed or stored by third parties on behalf of the Company or its subsidiaries), equipment or technology (collectively, "IT Systems and Data"); (B) neither the Company nor its subsidiaries have been notified of, nor

have any knowledge of any event or condition that would result in, any security breach or incident, unauthorized access or disclosure of or other compromise to their IT Systems and Data; (C) the Company and its subsidiaries have implemented appropriate controls, policies, procedures, and technological safeguards to maintain and protect the integrity, continuous operation, redundancy and security of their IT Systems and Data reasonably consistent with industry standards and practices, or as required by applicable regulatory standards; and (D) the Company and its subsidiaries are presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data, including the collection, use, transfer, processing, disposal, disclosure, handling, storage and analysis of personally identifiable information, protected health information, consumer information and other confidential information of the Company, its subsidiaries and any third parties in their possession ("Sensitive Company Data"), and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification. The Company and its subsidiaries have taken all reasonable steps necessary to maintain the confidentiality of the Sensitive Company Data. The Company and its subsidiaries have not received any written notice, claim, complaint, demand or letter from any person in respect of their businesses under applicable data security and data protection laws and regulations and industry standards regarding misuse, loss, unauthorized destruction or unauthorized disclosure of any Sensitive Company Data. There has been no unauthorized or illegal use of or access to any Sensitive Company Data by any third party. The Company and its subsidiaries have not been required to notify any individual or data protection authority of any information security breach, compromise or incident involving Sensitive Company Data.

(xxxvii) No Rated Securities. Neither the Company nor its subsidiaries have any debt securities or preferred stock that are rated by any "nationally recognized statistical rating organization" (as defined in Section 3(a)(62) of the 1934 Act).

(xxxviii) ERISA Compliance. (a) The Company and its subsidiaries and any "Employee Benefit Plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations promulgated thereunder (collectively, "ERISA")) for which the Company, its subsidiaries or its or their "ERISA Affiliates" (as defined below) would have any liability (each, a "Plan") are in compliance in all material respects with ERISA and each Plan has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to, ERISA and the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "Code"); (b) no "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any Plan; (c) no Plan, if such Plan were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA), as the fair market value of the assets under each Plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (d) neither the Company, its subsidiaries nor any of its or their ERISA Affiliates has incurred or reasonably expects to incur any obligation or liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any Plan, (ii) Sections 412 and 430, 4971, 4975 or 4980B of the Code or (iii) Sections 302 and 303, 406, 4063 and 4064 of ERISA; and (e) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or failure to act, which would reasonably be likely to cause the loss of such qualification. There is no pending audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other governmental or foreign regulatory entity or agency with respect to any Plan that could reasonably be expected to result in

a Material Adverse Effect. Except as would not reasonably be expected to result in liability to the Company or any of its subsidiaries, neither the Company nor any of its subsidiaries have any "accumulated post-retirement benefit obligations" (within the meaning of Statement of Financial Accounting Standards 106). "ERISA Affiliate" means, with respect to the Company, any member of any group of organizations described in Sections 414(b), (c), (m) or (o) of the Code of which the Company or such subsidiary is a member.

(xxxix) Regulatory Matters. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, and except as would not, singly or in the aggregate, have or reasonably be expected to have a Material Adverse Effect: (i) neither the Company nor its Subsidiaries has received any written notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the FDA, the EMA or other relevant regulatory authorities, or any other court or arbitrator or federal, state, local or foreign governmental or regulatory authority, alleging or asserting material noncompliance with the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), as amended, and the regulations promulgated thereunder (the "FFDCA"), or similar state, federal or foreign law or regulation (collectively, "Health Care Laws"); (ii) the Company and its Subsidiaries are and have been in compliance in all material respects with applicable Health Care Laws; (iii) neither the Company nor its Subsidiaries received written notice of any ongoing claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any U.S. or non-U.S. federal, national, state, local or other governmental or regulatory authority, governmental or regulatory agency or body, court, arbitrator or self-regulatory organization (each, a "Governmental Authority") or third party alleging that any product operation or activity is in violation of any Health Care Laws; (iv) the Company and its Subsidiaries have filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by applicable Health Care Laws, and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete, correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission); (v) neither the Company nor its Subsidiaries or any of their respective directors, officers, employees or agents is or has been debarred, suspended or excluded, or has been convicted of any crime or engaged in any conduct that would result in a debarment, suspension or exclusion from any federal or state government health care program; and (vi) the Company is not a party to and the Company does not have any ongoing reporting obligations pursuant to, any corporate integrity agreements, deferred prosecution agreements, monitoring agreements, consent decrees, settlement orders, plans of correction or similar agreements with or imposed by an Governmental Authority.

(xl) Preclinical and Clinical Studies and Tests. The preclinical and clinical studies and tests conducted by, on behalf of or sponsored by the Company or its Subsidiaries, or in which the Company or its Subsidiaries has participated, that are described in, or the results of which are referred to in, the Registration Statement, the General Disclosure Package and the Prospectus, as applicable, were, and if still pending are, being conducted in accordance with the experimental protocols established for each study or trial, as well as any conditions of approval and policies imposed by any institutional review board, ethics review board or committee responsible for the oversight of such preclinical and clinical studies and tests, and all applicable local, state and federal laws, rules and regulations of the FDA, the EMA and comparable drug regulatory agencies outside of the United States to which they are subject (collectively, the "Regulatory Authorities") except where the failure to be so in compliance has not resulted and would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect; the descriptions in the Registration Statement, the General Disclosure Package or the Prospectus of the results of such studies and tests are accurate and not misleading in all material respects with

respect to the portions of such studies being described and fairly present the data derived from such studies or tests in all material respects; the Company has no knowledge of any other studies or tests not described in the Registration Statement, the General Disclosure Package and the Prospectus, the results of which are materially inconsistent with or reasonably call into question the results described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus when viewed in the context in which such results are described and the current state of development; neither the Company nor its Subsidiaries have, except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, and except as would not, singly or in the aggregate, have or reasonably be expected to have a Material Adverse Effect, received any written notice, correspondence or other communications from the Regulatory Authorities requiring or threatening (i) the termination or suspension or clinical hold of any preclinical and clinical studies or tests that are described in, or the results of which are referred to in, the Registration Statement, the General Disclosure Package and the Prospectus, or (ii) the material modification of any preclinical and clinical studies or tests that would cause them to differ from their descriptions in the Registration Statement, the General Disclosure Package and the Prospectus, other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies or tests, and, to the Company's knowledge, there are no reasonable grounds for the same.

(xli) No Safety Notices. (i) There have been no recalls, field notifications, field corrections, market withdrawals or replacements, warnings, "dear doctor" letters, investigator notices, safety alerts or other notice of action relating to an alleged lack of safety, efficacy, or regulatory compliance of the Company's or its subsidiaries' product candidates ("Safety Notices"), except as would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect, and (ii) there are no facts that would be reasonably likely to result in (x) a Safety Notice with respect to the Company's or its subsidiaries' product candidates, or (y) a termination or suspension of testing of any of the Company's or its subsidiaries' product candidates, except, in each of cases (x) or (y) such as would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect.

(b) *Officer's Certificates*. Any certificate signed by any officer of the Company or any of its subsidiaries delivered to the Representatives or to counsel for the Underwriters shall be deemed a representation and warranty by the Company to each Underwriter as to the matters covered thereby.

SECTION 2. Sale and Delivery to Underwriters; Closing.

(a) *Initial Securities*. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company agrees to sell to each Underwriter, severally and not jointly, and each Underwriter, severally and not jointly, agrees to purchase from the Company, at the price per share set forth in Schedule A, that number of Initial Securities set forth in Schedule A opposite the name of such Underwriter, plus any additional number of Initial Securities which such Underwriter may become obligated to purchase pursuant to the provisions of Section 10 hereof, subject, in each case, to such adjustments among the Underwriters as the Representatives in their sole discretion shall make to eliminate any sales or purchases of fractional shares.

(b) *Option Securities*. In addition, on the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company hereby grants an option to the Underwriters, severally and not jointly, to purchase up to an additional [●] shares of Common Stock, at the price per share set forth in Schedule A, less an amount per share equal to any dividends or distributions declared by the Company and payable on the Initial Securities but not payable on the Option

Securities. The option hereby granted may be exercised for 30 days after the date hereof and may be exercised in whole or in part at any time from time to time upon notice by the Representatives to the Company setting forth the number of Option Securities as to which the several Underwriters are then exercising the option and the time and date of payment and delivery for such Option Securities. Any such time and date of delivery (a "Date of Delivery") shall be determined by the Representatives, but shall not be later than seven full business days after the exercise of said option, nor in any event prior to the Closing Time. If the option is exercised as to all or any portion of the Option Securities, each of the Underwriters, acting severally and not jointly, will purchase that proportion of the total number of Option Securities then being purchased which the number of Initial Securities set forth in Schedule A opposite the name of such Underwriter bears to the total number of Initial Securities, subject, in each case, to such adjustments as the Representatives in their sole discretion shall make to eliminate any sales or purchases of fractional shares.

(c) *Payment*. Payment of the purchase price for, and delivery of certificates or security entitlements for, the Initial Securities shall be made at the offices of Shearman & Sterling LLP, 599 Lexington Avenue, New York, New York 10022, or at such other place as shall be agreed upon by the Representatives and the Company, at 9:00 A.M. (New York City time) on the second (third, if the pricing occurs after 4:30 P.M. (New York City time) on any given day) business day after the date hereof (unless postponed in accordance with the provisions of Section 10), or such other time not later than ten business days after such date as shall be agreed upon by the Representatives and the Company (such time and date of payment and delivery being herein called "Closing Time").

In addition, in the event that any or all of the Option Securities are purchased by the Underwriters, payment of the purchase price for, and delivery of certificates or security entitlements for, such Option Securities shall be made at the above-mentioned offices, or at such other place as shall be agreed upon by the Representatives and the Company, on each Date of Delivery as specified in the notice from the Representatives to the Company.

Payment shall be made to the Company by wire transfer of immediately available funds to a bank account designated by the Company against delivery to the Representatives for the respective accounts of the Underwriters of certificates or security entitlements for the Securities to be purchased by them. It is understood that each Underwriter has authorized the Representatives, for its account, to accept delivery of, receipt for, and make payment of the purchase price for, the Initial Securities and the Option Securities, if any, which it has agreed to purchase. BofAS, individually and not as representative of the Underwriters, may (but shall not be obligated to) make payment of the purchase price for the Initial Securities or the Option Securities, if any, to be purchased by any Underwriter whose funds have not been received by the Closing Time or the relevant Date of Delivery, as the case may be, but such payment shall not relieve such Underwriter from its obligations hereunder.

SECTION 3. Covenants of the Company. The Company covenants with each Underwriter as follows:

(a) *Compliance with Securities Regulations and Commission Requests*. The Company, subject to Section 3(b), will comply with the requirements of Rule 430A, and will promptly notify the Representatives, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective or any amendment or supplement to the Prospectus shall have been filed, (ii) of the receipt of any comments from the Commission, (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any preliminary prospectus or the Prospectus, or of the

suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the 1933 Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the 1933 Act in connection with the offering of the Securities. The Company will effect all filings required under Rule 424(b), in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and will take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company will use reasonable best efforts to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof as soon as practicable.

(b) *Continued Compliance with Securities Laws*. The Company will comply with the 1933 Act and the 1933 Act Regulations so as to permit the completion of the distribution of the Securities as contemplated in this Agreement and in the Registration Statement, the General Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172 of the 1933 Act Regulations ("Rule 172"), would be) required by the 1933 Act to be delivered in connection with sales of the Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) amend or supplement the General Disclosure Package or the Prospectus in order that the General Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the General Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the 1933 Act or the 1933 Act Regulations, the Company will promptly (A) give the Representatives notice of such event, (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the General Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representatives with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Representatives or counsel for the Underwriters shall object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representatives notice of any filings made pursuant to the 1934 Act or 1934 Act Regulations within 48 hours prior to the Applicable Time; the Company will give the Representatives notice of its intention to make any such filing from the Applicable Time to the Closing Time and will furnish the Representatives with copies of any such documents a reasonable amount of time prior to such proposed filing, as the case may be.

(c) *Delivery of Registration Statements*. The Company has furnished or will deliver to the Representatives and counsel for the Underwriters, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith) and signed copies of all consents and certificates of experts, and will also deliver to the Representatives, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) *Delivery of Prospectuses*. The Company has delivered to each Underwriter, without charge, as many copies of each preliminary prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the 1933 Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(e) *Blue Sky Qualifications*. The Company will use its reasonable best efforts, in cooperation with the Underwriters, to qualify the Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representatives may designate and to maintain such qualifications in effect so long as required to complete the distribution of the Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

(f) *Rule 158*. The Company will timely file such reports pursuant to the "1934 Act" as are necessary in order to make generally available to its securityholders as soon as practicable an earnings statement for the purposes of, and to provide to the Underwriters the benefits contemplated by, the last paragraph of Section 11(a) of the 1933 Act.

(g) *Use of Proceeds*. The Company will use the net proceeds received by it from the sale of the Securities in the manner specified in the Registration Statement, the General Disclosure Package and the Prospectus under "Use of Proceeds."

(h) *Listing*. The Company will use its reasonable best efforts to effect and maintain the listing of the Common Stock (including the Securities) on the Nasdaq Global Market.

(i) *Restriction on Sale of Securities*. During a period of 180 days from the date of the Prospectus, the Company will not, without the prior written consent of BofAS and Jefferies, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or file or confidentially submit any registration statement under the 1933 Act with respect to any of the foregoing , (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Common Stock, whether any such swap or transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise or (iii) publicly disclose the intention to do any of the foregoing described in clauses (i) and (ii). The foregoing sentence shall not apply to (A) the Securities to be sold hereunder, (B) any shares of Common Stock issued by the Company upon the exercise of an option or warrant or the conversion of a security outstanding on the date hereof and referred to in the Registration Statement, the General Disclosure Package and the Prospectus, (C) any shares of Common Stock issued or options to purchase Common Stock or other equity awards covering Common Stock granted, in either case, pursuant to existing employee benefit plans of the Company referred to in the Registration Statement, the General Disclosure Package and the Prospectus, (D) any shares of Common Stock issued pursuant to any non-employee director compensation plan or program or dividend reinvestment plan referred to in the Registration Statement, the General Disclosure Package and the Prospectus, (E) the filing by the Company of a registration statement with the Commission on Form S-8

in respect of any shares or other equity instruments issued pursuant to any plans or programs described in (C) or (D) above, or (F) the sale or issuance of or entry into an agreement to sell or issue shares of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock in connection with any (1) mergers, (2) acquisition of securities, businesses, property or other assets, (3) joint ventures or (4) strategic alliances or relationships; provided, that the aggregate number of shares of Common Stock or securities convertible into or exercisable for Common Stock (on an as-converted or as-exercised basis, as the case may be) that the Company may sell or issue or agree to sell or issue pursuant to this clause (F) shall not exceed 5% of the total number of shares of the Company's Common Stock issued and outstanding immediately following the completion of the transactions contemplated by this Agreement; and provided further, that each recipient of shares of Common Stock or securities convertible into or exercisable for Common Stock pursuant to this clause (F) shall execute a lock-up agreement substantially in the form of Exhibit A-2 hereto.

(j) If BofAS and Jefferies, in their sole discretion, agree to release or waive the restrictions set forth in a lock-up agreement described in Section 5(i) hereof for an officer or director of the Company and provide the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit B hereto through a major news service at least two business days before the effective date of the release or waiver.

(k) *Reporting Requirements*. The Company, during the period when a Prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, will file all documents required to be filed with the Commission pursuant to the 1934 Act within the time periods required by the 1934 Act and 1934 Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Securities as may be required under Rule 463 under the 1933 Act.

(l) *Issuer Free Writing Prospectuses*. The Company agrees that, unless it obtains the prior written consent of the Representatives, it will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a "free writing prospectus," or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the Representatives will be deemed to have consented to the Issuer Free Writing Prospectuses listed on Schedule B-2 hereto and any "road show that is a written communication" within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Representatives. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Representatives as an "issuer free writing prospectus," as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement which has not been superseded or modified, any preliminary prospectus or the Prospectus or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(m) *Certification Regarding Beneficial Owners*. The Company will deliver to the Representatives, on the date of execution of this Agreement, a properly completed and executed Certification Regarding Beneficial Owners of Legal Entity Customers, together with copies of identifying documentation, and the Company undertakes to provide such additional supporting documentation as the Representatives may reasonably request in connection with the verification of the foregoing certification.

(n) Testing-the-Waters Materials. If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(o) Emerging Growth Company Status. The Company will promptly notify the Representatives if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) completion of the distribution of the Securities within the meaning of the 1933 Act and (ii) completion of the 180-day restricted period referred to in Section 3(i).

SECTION 4. Payment of Expenses.

(a) *Expenses*. The Company will pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and each amendment thereto, (ii) the preparation, printing and delivery to the Underwriters of copies of each preliminary prospectus, each Issuer Free Writing Prospectus and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Underwriters to investors, (iii) the preparation, issuance and delivery of the certificates or security entitlements for the Securities to the Underwriters, including any stock or other transfer taxes and any stamp or other duties payable upon the sale, issuance or delivery of the Securities to the Underwriters, (iv) the fees and disbursements of the Company's counsel, accountants and other advisors, (v) subject to the limitation set forth in clause (viii) below, the qualification of the Securities under securities laws in accordance with the provisions of Section 3(e) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection therewith and in connection with the preparation of the Blue Sky Survey and any supplement thereto, (vi) the fees and expenses of any transfer agent or registrar for the Securities, (vii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the Securities, including without limitation, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged by the Company in connection with the road show presentations, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and 50% of the cost of aircraft and other transportation chartered in connection with the road show, (viii) the filing fees incident to, and the reasonable fees and disbursements of counsel to the Underwriters in connection with, the review by FINRA of the terms of the sale of the Securities; *provided* that the amount payable by the Company pursuant to this clause (viii) when taken together with amounts payable pursuant to clause (v) shall not exceed $50,000 in the aggregate, (ix) the fees and expenses incurred in connection with the listing of the Securities on the Nasdaq Global Market, (x) the costs and expenses (including, without limitation, any damages or other amounts payable in connection with legal or contractual liability) associated with the reforming of any contracts for sale of the Securities made by the Underwriters caused by a breach of the representation contained in the third sentence of Section 1(a)(ii); provided that any expenses payable under clauses (v) and (viii) above and any expenses relating to the remaining 50% of the cost of any aircraft or other transportation chartered in connection with the road show described in clause (vii) above are invoiced in a reasonably timely manner.

(b) *Termination of Agreement*. If this Agreement is terminated by the Representatives in accordance with the provisions of Section 5, Section 9(a)(i) or (iii) or Section 10 hereof, the Company shall reimburse the non-defaulting Underwriters for all of their documented out-of-pocket expenses, including the reasonable and documented fees and disbursements of counsel for the Underwriters.

SECTION 5. Conditions of Underwriters' Obligations. The obligations of the several Underwriters hereunder are subject to the accuracy of the representations and warranties of the Company contained herein or in certificates of any officer of the Company or any of its subsidiaries delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Effectiveness of Registration Statement; Rule 430A Information*. The Registration Statement, including any Rule 462(b) Registration Statement, has become effective and, at the Closing Time, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated; and the Company has complied with each request (if any) from the Commission for additional information. A prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) without reliance on Rule 424(b)(8) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A.

(b) *Opinion of Counsel for Company*. At the Closing Time, the Representative shall have received:

(i) the opinion and negative assurance letter, dated the Closing Time, of Latham & Watkins LLP, counsel for the Company, in form and substance reasonably satisfactory to counsel for the Underwriters, together with signed or reproduced copies of such letter for each of the other Underwriters; and

(ii) the opinion, dated the Closing Time, of Medlen & Carroll LLP, intellectual property counsel for the Company, in form and substance reasonably satisfactory to counsel for the Underwriters, together with signed or reproduced copies of such letter for each of the other Underwriters.

(c) *Opinion of Counsel for Underwriters*. At the Closing Time, the Representatives shall have received the favorable opinion and negative assurance letter, dated the Closing Time, of Shearman & Sterling LLP, counsel for the Underwriters, together with signed or reproduced copies of such letter for each of the other Underwriters, in form and substance satisfactory to the Underwriters.

(d) *Officers' Certificate*. At the Closing Time, there shall not have been, since the date hereof or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, and the Representatives shall have received a certificate of the Chief Executive Officer of the Company and of the chief financial or chief accounting officer of the Company, dated the Closing Time, to the effect that (i) there has been no such material adverse change, (ii) the representations and warranties of the Company in this Agreement are true and correct with the same force and effect as though expressly made at and as of the Closing Time, (iii) the Company has complied with all agreements and satisfied all conditions on its

part to be performed or satisfied at or prior to the Closing Time, and (iv) no stop order suspending the effectiveness of the Registration Statement under the 1933 Act has been issued, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to their knowledge, contemplated by the Commission.

(e) *Accountant's Comfort Letter*. At the time of the execution of this Agreement, the Representatives shall have received from BDO USA, LLP a letter, dated such date, in form and substance satisfactory to the Representatives, together with signed or reproduced copies of such letter for each of the other Underwriters containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the General Disclosure Package and the Prospectus.

(f) *Bring-down Comfort Letter*. At the Closing Time, the Representatives shall have received from BDO USA, LLP a letter, dated as of the Closing Time, to the effect that they reaffirm the statements made in the letter furnished pursuant to subsection (e) of this Section, except that the specified date referred to shall be a date not more than three business days prior to the Closing Time.

(g) *Approval of Listing.* At the Closing Time, the Securities shall have been approved for listing on the Nasdaq Global Market, subject only to official notice of issuance.

(h) *No Objection*. FINRA shall have confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and arrangements relating to the offering of the Securities.

(i) *Lock-up Agreements*. At the date of this Agreement, the Representatives shall have received (i) an agreement substantially in the form of Exhibit A-1 hereto signed by each Person who beneficially owns (as such term is defined in the 1934 Act Regulations) 5% or more of the Company's capital stock (as an as-converted basis) and certain directors affiliated with such Persons and (ii) an agreement substantially in the form of Exhibit A-2 hereto signed by substantially all other Persons who hold shares of the Company's capital stock or options to purchase the Company's capital stock.

(j) *Chief Financial Officer's Certificate*. On the date of this Agreement and at Closing Time, the Representative shall have received from the Company a certificate of its chief financial officer with respect to certain financial data contained in the General Disclosure Package and the Prospectus, which certificate shall be in form and substance reasonably satisfactory to counsel for the Underwriters.

(k) *Conditions to Purchase of Option Securities*. In the event that the Underwriters exercise their option provided in Section 2(b) hereof to purchase all or any portion of the Option Securities, the representations and warranties of the Company contained herein and the statements in any certificates furnished by the Company and any of its subsidiaries hereunder shall be true and correct as of each Date of Delivery and, at the relevant Date of Delivery, the Representatives shall have received:

(i) Officers' Certificate. A certificate, dated such Date of Delivery, of the President or a Vice President of the Company and of the chief financial or chief accounting officer of the Company confirming that the certificate delivered at the Closing Time pursuant to Section 5(d) hereof remains true and correct as of such Date of Delivery.

(ii) Opinion of Counsel for Company. If requested by the Representatives, the opinion and negative assurance letter of Latham & Watkins LLP, counsel for the Company, together with the opinion of Medlen & Carroll LLP, intellectual property counsel for the Company, each in form and substance reasonably satisfactory to counsel for the Underwriters, dated such Date of Delivery, relating to the Option Securities to be purchased on such Date of Delivery and otherwise to the same effect as the opinion required by Section 5(b) hereof.

(iii) Opinion of Counsel for Underwriters. If requested by the Representative, the favorable opinion of Shearman & Sterling LLP, counsel for the Underwriters, dated such Date of Delivery, relating to the Option Securities to be purchased on such Date of Delivery and otherwise to the same effect as the opinion required by Section 5(c) hereof.

(v) Bring-down Comfort Letter. If requested by the Representative, a letter from BDO USA, LLP, in form and substance satisfactory to the Representatives and dated such Date of Delivery, substantially in the same form and substance as the letter furnished to the Representatives pursuant to Section 5(e) hereof, except that the "specified date" in the letter furnished pursuant to this paragraph shall be a date not more than three business days prior to such Date of Delivery.

(vi) Chief Financial Officer's Certificate. A certificate, dated such Date of Delivery, of the chief financial or chief accounting officer of the Company confirming that the certificate delivered at the Closing Time pursuant to Section 5(k) hereof remains true and correct as of such Date of Delivery.

(l) *Additional Documents*. At the Closing Time and at each Date of Delivery (if any) counsel for the Underwriters shall have been furnished with such documents and opinions as they may reasonably require for the purpose of enabling them to pass upon the issuance and sale of the Securities as herein contemplated, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Securities as herein contemplated shall be reasonably satisfactory in form and substance to the Representatives and counsel for the Underwriters.

(m) *Termination of Agreement*. If any condition specified in this Section shall not have been fulfilled when and as required to be fulfilled, this Agreement, or, in the case of any condition to the purchase of Option Securities on a Date of Delivery which is after the Closing Time, the obligations of the several Underwriters to purchase the relevant Option Securities, may be terminated by the Representatives by notice to the Company at any time at or prior to Closing Time or such Date of Delivery, as the case may be, and such termination shall be without liability of any party to any other party except as provided in Section 4 and except that Sections 1, 6, 7, 8, 14, 15, 16 and 17 shall survive any such termination and remain in full force and effect.

SECTION 6. Indemnification.

(a) *Indemnification of Underwriters*. The Company agrees to indemnify and hold harmless each Underwriter, its affiliates (as such term is defined in Rule 501(b) under the 1933 Act (each, an "Affiliate")), its selling agents and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including the Rule 430A Information, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading or arising out of any untrue statement or alleged untrue statement of a material fact included (A) in any preliminary

prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto), or (B) in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Securities ("Marketing Materials"), including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or the omission or alleged omission in any preliminary prospectus, Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, Prospectus or in any Marketing Materials of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 6(d) below) any such settlement is effected with the written consent of the Company;

(iii) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel chosen by the Representatives), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above;

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made in the Registration Statement (or any amendment thereto), including the Rule 430A Information, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(b) *Indemnification of Company, Directors and Officers*. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act, against any and all loss, liability, claim, damage and expense described in the indemnity contained in subsection (a) of this Section, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendment thereto), including the Rule 430A Information, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(c) *Actions against Parties; Notification*. Each indemnified party shall give notice as promptly as reasonably practicable to each indemnifying party of any action commenced against it in respect of which indemnity may be sought hereunder, but failure to so notify an indemnifying party shall not relieve such indemnifying party from any liability hereunder to the extent it is not materially prejudiced as a result thereof and in any event shall not relieve it from any liability which it may have otherwise than on account of this indemnity agreement. In the case of parties indemnified pursuant to Section 6(a) above, counsel to the indemnified parties shall be selected by the Representatives, and, in the case of parties indemnified pursuant to Section 6(b) above, counsel to the indemnified parties shall be selected by the Company. An indemnifying party may participate at its own expense in the defense of any such action; provided, however, that counsel to the indemnifying party shall not (except with the consent of the indemnified party) also be counsel to the indemnified party. In no event shall the

indemnifying parties be liable for fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for all indemnified parties in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever in respect of which indemnification or contribution could be sought under this Section 6 or Section 7 hereof (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) *Settlement without Consent if Failure to Reimburse*. If at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 6(a)(ii) effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

SECTION 7. Contribution. If the indemnification provided for in Section 6 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and of the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations.

The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Securities pursuant to this Agreement shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Securities pursuant to this Agreement (before deducting expenses) received by the Company, on the one hand, and the total underwriting discount received by the Underwriters, on the other hand, in each case as set forth on the cover of the Prospectus, bear to the aggregate initial public offering price of the Securities as set forth on the cover of the Prospectus.

The relative fault of the Company, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 7 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 7. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above in this Section 7 shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission.

Notwithstanding the provisions of this Section 7, no Underwriter shall be required to contribute any amount in excess of the underwriting commissions received by such Underwriter in connection with the Securities underwritten by it and distributed to the public.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

For purposes of this Section 7, each person, if any, who controls an Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act and each Underwriter's Affiliates and selling agents shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall have the same rights to contribution as the Company. The Underwriters' respective obligations to contribute pursuant to this Section 7 are several in proportion to the number of Initial Securities set forth opposite their respective names in Schedule A hereto and not joint.

SECTION 8. Representations, Warranties and Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or any of its subsidiaries submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company and (ii) delivery of and payment for the Securities.

SECTION 9. Termination of Agreement.

(a) *Termination*. The Representatives may terminate this Agreement, by notice to the Company, at any time at or prior to the Closing Time (i) if there has been, in the judgment of the Representatives, since the time of execution of this Agreement or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, or (ii) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Representatives, impracticable or inadvisable to proceed with the completion of the offering or to enforce contracts for the sale of the Securities, or (iii) if trading in any securities of the Company has been suspended or materially limited by the Commission or the Nasdaq Global Market, or (iv) if trading generally on the NYSE MKT or the New York Stock Exchange or in the Nasdaq Global Market has been suspended or materially limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by any of said exchanges or by order of the Commission, FINRA or any other governmental authority, or (v) a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States or with respect to Clearstream or Euroclear systems in Europe, or (vi) if a banking moratorium has been declared by either Federal or New York authorities.

(b) *Liabilities*. If this Agreement is terminated pursuant to this Section, such termination shall be without liability of any party to any other party except as provided in Section 4 hereof, and provided further that Sections 1, 6, 7, 8, 14, 15 and 16 shall survive such termination and remain in full force and effect.

SECTION 10. Default by One or More of the Underwriters. If one or more of the Underwriters shall fail at the Closing Time or a Date of Delivery to purchase the Securities which it or they are obligated to purchase under this Agreement (the "Defaulted Securities"), the Representatives shall have the right, within 24 hours thereafter, to make arrangements for one or more of the non-defaulting Underwriters, or any other underwriters reasonably satisfactory to the Company, to purchase all, but not less than all, of the Defaulted Securities in such amounts as may be agreed upon and upon the terms herein set forth; if, however, the Representatives shall not have completed such arrangements within such 24-hour period, then:

(i) if the number of Defaulted Securities does not exceed 10% of the number of Securities to be purchased on such date, each of the non-defaulting Underwriters shall be obligated, severally and not jointly, to purchase the full amount thereof in the proportions that their respective underwriting obligations hereunder bear to the underwriting obligations of all non-defaulting Underwriters, or

(ii) if the number of Defaulted Securities exceeds 10% of the number of Securities to be purchased on such date, this Agreement or, with respect to any Date of Delivery which occurs after the Closing Time, the obligation of the Underwriters to purchase, and the Company to sell, the Option Securities to be purchased and sold on such Date of Delivery shall terminate without liability on the part of any non-defaulting Underwriter.

No action taken pursuant to this Section shall relieve any defaulting Underwriter from liability in respect of its default.

In the event of any such default which does not result in a termination of this Agreement or, in the case of a Date of Delivery which is after the Closing Time, which does not result in a termination of the obligation of the Underwriters to purchase and the Company to sell the relevant Option Securities, as the case may be, either the (i) Representatives or (ii) the Company shall have the right to postpone Closing Time or the relevant Date of Delivery, as the case may be, for a period not exceeding seven days in order to effect any required changes in the Registration Statement, the General Disclosure Package or the Prospectus or in any other documents or arrangements. As used herein, the term "Underwriter" includes any person substituted for an Underwriter under this Section 10.

SECTION 11. Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Underwriters shall be directed to BofAS at One Bryant Park, New York, New York 10036, attention of Syndicate Department (facsimile: (646) 855-3073), with a copy to ECM Legal (facsimile: (212) 230-8730), to Jefferies at 520 Madison Avenue, New York, New York 10022, attention of General Counsel (facsimile: (646) 619-4437), to William Blair at 150 North Riverside Plaza, Chicago, IL 60606, attention of General Counsel, (facsimile: (312) 551-4646) and to Shearman & Sterling LLP, 599 Lexington Avenue, New York, New York 10013, attention of Ilir Mujalovic; notices to the Company shall be directed to it at 480 Arsenal Street, Watertown, Massachusetts 02472, attention of Chief Financial Officer; with a copy to Latham & Watkins LLP at 200 Clarendon Street, Boston, Massachusetts, attention of Peter Handrinos and Wesley Holmes.

SECTION 12. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (a) the purchase and sale of the Securities pursuant to this Agreement, including the determination of the initial public offering price of the Securities and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (b) in connection with the offering of the Securities and the process leading thereto, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, any of its subsidiaries or their respective stockholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering of the Securities or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company or any of its subsidiaries on other matters) and no Underwriter has any obligation to the Company with respect to the offering of the Securities except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering of the Securities and the Company has consulted its own respective legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

SECTION 13. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

For purposes of this Section 13, a "BHC Act Affiliate" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k). "Covered Entity" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b). **"**Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable. "U.S. Special Resolution Regime" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

SECTION 14. Parties. This Agreement shall each inure to the benefit of and be binding upon the Underwriters and the Company and their respective successors. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, firm or corporation, other than the Underwriters and the Company and their respective successors and the controlling persons and officers and directors referred to in Sections 6 and 7 and their heirs and legal representatives, any legal or

equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the Underwriters and the Company and their respective successors, and said controlling persons and officers and directors and their heirs and legal representatives, and for the benefit of no other person, firm or corporation. No purchaser of Securities from any Underwriter shall be deemed to be a successor by reason merely of such purchase.

SECTION 15. Trial by Jury. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

SECTION 16. GOVERNING LAW. THIS AGREEMENT AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF, THE STATE OF NEW YORK WITHOUT REGARD TO ITS CHOICE OF LAW PROVISIONS.

SECTION 17. Consent to Jurisdiction; Waiver of Immunity. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby ("Related Proceedings") shall be instituted in (i) the federal courts of the United States of America located in the City and County of New York, Borough of Manhattan or (ii) the courts of the State of New York located in the City and County of New York, Borough of Manhattan (collectively, the "Specified Courts"), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a "Related Judgment"), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

SECTION 18. TIME. TIME SHALL BE OF THE ESSENCE OF THIS AGREEMENT. EXCEPT AS OTHERWISE SET FORTH HEREIN, SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME.

SECTION 19. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same Agreement. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

SECTION 20. Effect of Headings. The Section headings herein are for convenience only and shall not affect the construction hereof.

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement among the Underwriters and the Company in accordance with its terms.

Very truly yours,

LYRA THERAPEUTICS, INC.

By _____
Title:

CONFIRMED AND ACCEPTED,
as of the date first above written:

BOFA SECURITIES, INC.

By _____
Authorized Signatory

JEFFERIES LLC

By _____
Authorized Signatory

WILLIAM BLAIR & COMPANY, L.L.C.

By _____
Authorized Signatory

For itself and as Representatives of the other Underwriters named in Schedule A hereto.

SCHEDULE A

The initial public offering price per share for the Securities shall be $[●].

The purchase price per share for the Securities to be paid by the several Underwriters shall be $[●], being an amount equal to the initial public offering price set forth above less $[●] per share, subject to adjustment in accordance with Section 2(b) for dividends or distributions declared by the Company and payable on the Initial Securities but not payable on the Option Securities.

Name of Underwriter	Number of Initial Securities
BofA Securities, Inc.	[●]
Jefferies LLC	[●]
William Blair & Company, L.L.C.	[●]
BTIG, LLC	[●]
Total	[●]

SCHEDULE B-1

Pricing Terms

1. The Company is selling [●] shares of Common Stock.

2. The Company has granted an option to the Underwriters, severally and not jointly, to purchase up to an additional [●] shares of Common Stock.

3. The initial public offering price per share for the Securities shall be $[●].

SCHEDULE B-2

Free Writing Prospectuses

[●]

SCHEDULE B-3

Written Testing-the-Waters Communication

[●]

LOCK-UP AGREEMENT

_____, 2020

BofA Securities, Inc.
Jefferies LLC
William Blair & Company, L.L.C.,

as Representatives of the several
Underwriters to be named in the
within-mentioned Underwriting Agreement

c/o BofA Securities, Inc.
One Bryant Park
New York, New York 10036

Jefferies LLC
520 Madison Avenue
New York, New York 10022

William Blair & Company, L.L.C.
150 North Riverside Plaza
Chicago, Illinois 60606

Re: Proposed Public Offering by Lyra Therapeutics, Inc.

Dear Ladies and Gentlemen:

The undersigned, a stockholder and/or stock option holder and/or officer and/or director of Lyra Therapeutics, Inc., a Delaware corporation (the "Company"), understands that BofA Securities, Inc. ("BofAS"), Jefferies LLC ("Jefferies") and William Blair & Company, L.L.C. ("William Blair") propose to enter into an Underwriting Agreement (the "Underwriting Agreement") with the Company providing for the public offering (the "Public Offering") of shares of the Company's common stock, par value $0.001 per share (the "Common Stock"). In recognition of the benefit that such an offering will confer upon the undersigned as a stockholder and/or stock option holder and/or officer and/or director of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each underwriter to be named in the Underwriting Agreement that, during the period beginning on the date of the first public filing with the Securities and Exchange Commission (the "SEC") of the Form S-1 registration statement relating to the Public Offering (the "Form S-1") and ending on the date that is 180 calendar days from the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of BofAS and Jefferies, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of the Company's Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock (each, a "Transaction"), whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"), or (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the

economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of shares of Common Stock or other securities, in cash or otherwise (each, a "Swap") or (iii) publicly disclose the intention to do any of the foregoing described in clauses (i) and (ii) above. If the undersigned is an officer or director of the Company, the undersigned further agrees that the foregoing provisions shall be equally applicable to any issuer-directed shares of Common Stock the undersigned may purchase in the Public Offering. For the avoidance of doubt, the foregoing provisions shall not affect the undersigned's rights to purchase or acquire any securities of the Company during or after the Lock-Up Period.

If the undersigned is an officer or director of the Company, (1) BofAS and Jefferies agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock, BofAS and Jefferies will notify the Company of the impending release or waiver, and (2) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by BofAS and Jefferies hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (i) the release or waiver is effected solely to permit a transfer not for consideration and (ii) the transferee has agreed in writing to be bound by the same terms described in this letter to the extent and for the duration that such terms remain in effect at the time of the transfer.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer or otherwise dispose of the Lock-Up Securities without the prior written consent of BofAS and Jefferies, provided that (1) BofAS, Jefferies and William Blair receive a signed lock-up agreement for the balance of the Lock-Up Period from each donee, trustee, distributee, or transferee, as the case may be, (2) (x) in the case of clauses (i) through (iv) below, such transfers are not dispositions for value or required to be reported with the SEC on Form 4 in accordance with Section 16 of the Securities Exchange Act of 1934, as amended, and (y) in the case of clauses (v) through (ix) below, any such required Form 4 shall state the reason for such transfer, and (3) the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfers:

(i) as a *bona fide* gift or gifts; or

(ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin); or

(iii) as a distribution to limited or general partners, stockholders or members of the undersigned; or

(iv) to the undersigned's affiliates or to any investment fund or other entity that, directly or indirectly, controls or manages, is controlled or managed by, or is under common control or management with, the undersigned; or

(v) by will or intestacy; or

(vi) to the Company in connection with the exercise of options, warrants or other rights to acquire shares of the Common Stock or any security convertible into or exercisable for shares of the Common Stock of the Company by way of net exercise and/or to cover withholding tax obligations in connection with such exercise pursuant to an employee benefit plan, option, warrant or other right disclosed in the prospectus for the Public Offering, provided that any such shares of the Common Stock issued upon exercise of such option, warrant or other right shall be subject to the restrictions set forth herein; or

(vii) pursuant to a court order or settlement agreement by operation of law related to the distribution of assets in connection with the dissolution of a marriage or civil union; or

(viii) to the Company pursuant to agreements under which the Company has the option to repurchase such shares or a right of first refusal with respect to transfers of such shares upon termination of service of the undersigned; or

(ix) pursuant to the conversion of outstanding shares of convertible preferred stock and redeemable convertible preferred stock of the Company into shares of the Common Stock of the Company in connection with, and disclosed in the prospectus for, the Public Offering, provided that the shares of the Common Stock received upon such conversion shall be subject to the restrictions set forth herein; or

(x) to any nominee or custodian of a person or entity to whom a transfer or disposition would be permissible under clauses (i) through (ix), and in compliance with the requirements of clauses (1) through (3), above, as applicable; or

(xi) to a bona fide third party pursuant to a merger, consolidation, tender offer or other similar transaction occurring after the consummation of the Public Offering made to all holders of shares of the Common Stock and involving a Change of Control of the Company and approved by the Company's board of directors; provided that, in the event that such Change of Control is not completed, the undersigned's Lock-Up Securities shall remain subject to the restrictions contained herein, provided further that any shares of the Common Stock not transferred in such merger, consolidation, tender offer or other transaction shall remain subject to the restrictions contained herein. "Change of Control" shall mean the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter pursuant to the Public Offering), of the Company's voting securities if, after such transfer, such person or group of affiliated persons would hold more than 50% of the outstanding voting power of the Company (or the surviving entity).

Furthermore, notwithstanding anything to the contrary herein, the undersigned may enter into any Transaction or Swap of Common Stock of the Company (i) purchased from an underwriter in the Public Offering or (ii) purchased by the undersigned on the open market following the Public Offering if and only if, in each case, (A) such Transaction or Swap is not required to be reported in any public report or filing with the SEC, or otherwise during the Lock-Up Period and (B) the undersigned does not otherwise voluntarily effect any public filing or report regarding such Transaction or Swap during the Lock-Up Period.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Lock-Up Securities except in compliance with the foregoing restrictions.

Notwithstanding the foregoing, the undersigned may establish a trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, provided, that (i) the undersigned is not required to and does not otherwise effect any public filing or report regarding the establishment of such plan during the Lock-Up Period and (ii) no sales are made during the Lock-Up Period pursuant to such plan.

In addition, the undersigned hereby waives any rights the undersigned may have to require registration of shares of the Common Stock in connection with the filing of the Form S-1. The undersigned further agrees that, for the Lock-Up Period, the undersigned will not, without the prior written consent of the BofAS and Jefferies, make any demand for, or exercise any right with respect to, or file or cause to be filed any registration statement with respect to, the registration of shares of the Common Stock or any securities convertible into or exercisable or exchangeable for shares of the Common Stock, or warrants or other rights to purchase shares of the Common Stock or any such securities.

This agreement (and for the avoidance of doubt, the Lock-Up Period described herein) and related restrictions shall automatically terminate upon the earliest to occur, if any, of (i) either the Company, on the one hand, or BofAS and Jefferies, on the other hand, advising the other in writing prior to the execution of the Underwriting Agreement that it has determined not to proceed with the Public Offering, (ii) the termination of the Underwriting Agreement before the sale of any shares of the Common Stock to the underwriters, (iii) the Form S-1 filed with the SEC with respect to the Public Offering contemplated by the Underwriting Agreement is withdrawn, (iv) June 30, 2020, in the event the consummation of the Public Offering shall not have occurred on or before such date, or (v) a substantially identical form of this letter agreement is not executed by all founders, officers and directors of the Company and all stockholders owning more than 1% of the Common Stock of the Company (on an as converted basis) as of the date the Form S-1 is first publicly filed with the SEC.

[*Signature Page Follows*]

Very truly yours,

[*if signatory is an individual*]

Signature: _____

Name: _____

[*if signatory is an entity*]

Entity: _____

Signature: _____

Name: _____

Title: _____

LOCK-UP AGREEMENT

_____, 2020

BofA Securities, Inc.
Jefferies LLC
William Blair & Company, L.L.C.,

as Representatives of the several
Underwriters to be named in the
within-mentioned Underwriting Agreement

c/o BofA Securities, Inc.
One Bryant Park
New York, New York 10036

Jefferies LLC
520 Madison Avenue
New York, New York 10022

William Blair & Company, L.L.C.
150 North Riverside Plaza
Chicago, Illinois 60606

Re: Proposed Public Offering by Lyra Therapeutics, Inc.

Dear Ladies and Gentlemen:

The undersigned, a stockholder and/or stock option holder and/or officer and/or director of Lyra Therapeutics, Inc., a Delaware corporation (the "Company"), understands that BofA Securities, Inc. ("BofAS"), Jefferies LLC ("Jefferies") and William Blair & Company, L.L.C. ("William Blair") propose to enter into an Underwriting Agreement (the "Underwriting Agreement") with the Company providing for the public offering (the "Public Offering") of shares of the Company's common stock, par value $0.001 per share (the "Common Stock"). In recognition of the benefit that such an offering will confer upon the undersigned as a stockholder and/or stock option holder and/or officer and/or director of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each underwriter to be named in the Underwriting Agreement that, during the period beginning on the date hereof and ending on the date that is 180 calendar days from the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of BofAS and Jefferies, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of the Company's Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"), or (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of shares of Common Stock or other securities, in cash or otherwise or (iii) publicly disclose the intention to do any of the foregoing described in clauses (i) and (ii) above. If the undersigned is an officer or director of the Company, the undersigned further agrees that the foregoing provisions shall be equally applicable to any issuer-directed shares of Common Stock the undersigned may purchase in the Public Offering.

If the undersigned is an officer or director of the Company, (1) BofAS and Jefferies agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock, BofAS and Jefferies will notify the Company of the impending release or waiver, and (2) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by BofAS and Jefferies hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (i) the release or waiver is effected solely to permit a transfer not for consideration and (ii) the transferee has agreed in writing to be bound by the same terms described in this letter to the extent and for the duration that such terms remain in effect at the time of the transfer.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer or otherwise dispose of the Lock-Up Securities without the prior written consent of BofAS and Jefferies, provided that (1) BofAS, Jefferies and William Blair receive a signed lock-up agreement for the balance of the Lock-Up Period from each donee, trustee, distributee, or transferee, as the case may be, (2) (x) in the case of clauses (i) through (iv) below, such transfers are not dispositions for value or required to be reported with the Securities and Exchange Commission (the "SEC") on Form 4 in accordance with Section 16 of the Securities Exchange Act of 1934, as amended, and (y) in the case of clauses (v) through (ix) below, any such required Form 4 shall state the reason for such transfer, and (3) the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfers:

(xii) as a *bona fide* gift or gifts; or

(xiii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin); or

(xiv) as a distribution to limited or general partners, stockholders or members of the undersigned; or

(xv) to the undersigned's affiliates or to any investment fund or other entity controlled or managed by the undersigned; or

(xvi) by will or intestacy; or

(xvii) to the Company in connection with the exercise of options, warrants or other rights to acquire shares of the Common Stock or any security convertible into or exercisable for shares of the Common Stock of the Company by way of net exercise and/or to cover withholding tax obligations in connection with such exercise pursuant to an employee benefit plan, option, warrant or other right disclosed in the prospectus for the Public Offering, provided that any such shares of the Common Stock issued upon exercise of such option, warrant or other right shall be subject to the restrictions set forth herein; or

(xviii) pursuant to a court order or settlement agreement by operation of law related to the distribution of assets in connection with the dissolution of a marriage or civil union; or

(xix) to the Company pursuant to agreements under which the Company has the option to repurchase such shares or a right of first refusal with respect to transfers of such shares upon termination of service of the undersigned; or

(xx) pursuant to the conversion of outstanding shares of convertible preferred stock and redeemable convertible preferred stock of the Company into shares of the Common Stock of the Company in connection with, and disclosed in the prospectus for, the Public Offering, provided that the shares of the Common Stock received upon such conversion shall be subject to the restrictions set forth herein; or

(xxi) to any nominee or custodian of a person or entity to whom a transfer or disposition would be permissible under clauses (i) through (ix), and in compliance with the requirements of clauses (1) through (3), above, as applicable; or

(xxii) to a bona fide third party pursuant to a merger, consolidation, tender offer or other similar transaction occurring after the consummation of the Public Offering made to all holders of shares of the Common Stock and involving a Change of Control of the Company and approved by the Company's board of directors; provided that, in the event that such Change of Control is not completed, the undersigned's Lock-Up Securities shall remain subject to the restrictions contained herein, provided further that any shares of the Common Stock not transferred in such merger, consolidation, tender offer or other transaction shall remain subject to the restrictions contained herein. "Change of Control" shall mean the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter pursuant to the Public Offering), of the Company's voting securities if, after such transfer, such person or group of affiliated persons would hold more than 50% of the outstanding voting power of the Company (or the surviving entity).

Furthermore, notwithstanding anything to the contrary herein, the undersigned may sell shares of Common Stock of the Company purchased by the undersigned on the open market following the Public Offering if and only if (i) such sales are not required to be reported in any public report or filing with the SEC, or otherwise and (ii) the undersigned does not otherwise voluntarily effect any public filing or report regarding such sales.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Lock-Up Securities except in compliance with the foregoing restrictions.

Notwithstanding the foregoing, the undersigned may establish a trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, provided, that (i) the undersigned is not required to and does not otherwise effect any public filing or report regarding the establishment of such plan during the Lock-Up Period and (ii) no sales are made during the Lock-Up Period pursuant to such plan.

In addition, the undersigned hereby waives any rights the undersigned may have to require registration of shares of the Common Stock in connection with the filing of a registration statement relating to the Public Offering. The undersigned further agrees that, for the Lock-Up Period, the undersigned will not, without the prior written consent of the BofAS and Jefferies, make any demand for, or exercise any right with respect to, or file or cause to be filed any registration statement with respect to, the registration of shares of the Common Stock or any securities convertible into or exercisable or

exchangeable for shares of the Common Stock, or warrants or other rights to purchase shares of the Common Stock or any such securities. In addition, the undersigned hereby waives any and all preemptive rights, participation rights (including concurrent private placement rights), resale rights, rights of first refusal and similar rights that the undersigned may have in connection with the Public Offering or with any issuance or sale by the Company of any equity or other securities before the Public Offering, except for any such rights as have been heretofore duly exercised.

This agreement (and for the avoidance of doubt, the Lock-Up Period described herein) and related restrictions shall automatically terminate upon the earliest to occur, if any, of (i) either the Company, on the one hand, or BofAS and Jefferies, on the other hand, advising the other in writing prior to the execution of the Underwriting Agreement that it has determined not to proceed with the Public Offering, (ii) the termination of the Underwriting Agreement before the sale of any shares of the Common Stock to the underwriters, (iii) the registration statement filed with the SEC with respect to the Public Offering contemplated by the Underwriting Agreement is withdrawn or (iv) June 30, 2020, in the event the consummation of the Public Offering shall not have occurred on or before such date (provided, that the Company may by written notice to the undersigned prior to June 30, 2020 extend such date for a period of up to an additional three months).

[*Signature Page Follows*]

Very truly yours,

[*if signatory is an individual*]

Signature: _____

Name: _____

[*if signatory is an entity*]

Entity: _____

Signature: _____

Name: _____

Title: _____

FORM OF PRESS RELEASE
TO BE ISSUED PURSUANT TO SECTION 3(j)

Lyra Therapeutics, Inc.
, 20

Lyra Therapeutics, Inc. (the "Company") announced today that BofAS and Jefferies, the lead book-running managers in the Company's recent public sale of [●] shares of common stock, is [waiving] [releasing] a lock-up restriction with respect to shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on , 20 , and the shares may be sold on or after such date.

This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

State of Delaware
Secretary of State
Division of Corporations
Delivered 12:28 PM 01/10/2020
FILED 12:28 PM 01/10/2020
SR 20200201657 - File Number 4064768

Exhibit 3.1

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

LYRA THERAPEUTICS, INC.

Lyra Therapeutics, Inc., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "General Corporation Law"), does hereby certify as follows:

1. The name of the corporation is Lyra Therapeutics, Inc. The original Certificate of Incorporation of this corporation was filed with the Secretary of State of the State of Delaware on November 21, 2005 under the corporate name WMR Biomedical, Inc.

2. This Amended and Restated Certificate of Incorporation, which amends, restates and integrates the provisions of this corporation's Certificate of Incorporation (this "Amended and Restated Certificate of Incorporation"), was duly adopted in accordance with the provisions of Sections 141, 242 and 245 of the General Corporation Law and by the written consent of its stockholders in accordance Section 228 of the General Corporation Law.

3. This corporation's Certificate of Incorporation is hereby amended and restated in its entirety to provide as herein set forth in full.

FIRST: The name of the corporation is Lyra Therapeutics, Inc. (the "Corporation").

SECOND: The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle, State of Delaware, Zip Code 19801. The name of its registered agent at such address is: The Corporation Trust Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: Effective immediately and automatically upon the filing with the Secretary of State of the State of Delaware of this Amended and Restated Certificate of Incorporation (the "Effective Time"), (i) each share of Series A-l Preferred Stock (as defined below) that was previously reclassified from Pre-Recapitalization Series A Preferred Stock (as defined below) outstanding or issued and held in treasury immediately prior to the Effective Time shall be reclassified into one share of Series A-l/A Preferred Stock (as defined below), (ii) each share of Series A-l Preferred Stock that was previously reclassified from Pre-Recapitalization Series B Preferred Stock (as defined below) outstanding or issued and held in treasury immediately prior to the Effective Time shall be reclassified into one share of Series A-l/B Preferred Stock (as defined below), and (iii) each share of Series A-l Preferred Stock that was previously reclassified from Pre-Recapitalization Series C Preferred Stock (as defined below) outstanding or issued and held in treasury immediately prior to the Effective Time shall be reclassified into one share of Series A-l/C Preferred Stock (as defined below).

The total number of shares of all classes of stock which the Corporation shall have authority to issue is Six Hundred Ninety-Nine Million Three Hundred Thousand Two Hundred Eighty-Eight (699,300,288), of which (a) Four Hundred Million (400,000,000) shares shall be Common Stock, $0.001 par value per share ("Common Stock"), and (b) Two Hundred Ninety-Nine Million Three Hundred Thousand Two Hundred Eighty-Eight (299,300,288) shares shall be Preferred Stock, $0.001 par value per share ("Preferred Stock"), Seven Million Five Hundred Fifty-Four Thousand Six Hundred Fifty-Four (7,554,654) of which shall be designated Series A-1/A Convertible Preferred Stock ("Series A-l/A Preferred Stock"), Ten Million Five Thousand Six Hundred Seventy-Seven (10,005,677) of which shall be designated Series A-l/B Convertible Preferred Stock ("Series A-l/B Preferred Stock"), Sixteen Million Four Hundred Fifty-Six Thousand Seven Hundred Two (16,456,702) of which shall be designated Series A-l/C Convertible Preferred Stock ("Series A-l/C Preferred Stock" and, together with the Series A-l/A Preferred Stock and the Series A-l/B Preferred Stock, the "Series A-l Preferred Stock"), Twenty-Six Million Six Hundred Eighty Thousand Two Hundred Two (26,680,202) of which shall be designated Series A-2 Convertible Preferred Stock ("Series A-2 Preferred Stock"), Thirty Million Seventy Thousand Four Hundred Eighty-Seven (30,070,487) of which shall be designated Series A-3 Convertible Preferred Stock ("Series A-3 Preferred Stock"), Nineteen Million Nine Hundred Ninety-Nine Thousand Nine Hundred Ninety-Nine (19,999,999) of which shall be designated Series A-4 Convertible Preferred Stock ("Series A-4 Preferred Stock"), Ninety-Eight Million Three Hundred Fifty-One Thousand Nine Hundred Fifty-Three (98,351,953) of which shall be designated Series B Convertible Preferred Stock ("Series B Preferred Stock"), and Ninety Million One Hundred Eighty Thousand Six Hundred Fourteen (90,180,614) of which shall be designated Series C Convertible Preferred Stock ("Series C Preferred Stock").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof, in respect of each class of capital stock of the Corporation.

A) COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of Common Stock are subject to and qualified by the rights of the holders of Preferred Stock of any series as may be designated by the Board of Directors of the Corporation (the "Board of Directors") upon any issuance of Preferred Stock of any series.

2. Voting. The holders of Common Stock are entitled to one vote for each share held at all meetings of stockholders (and written actions in lieu of meetings). There shall be no cumulative voting.

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 a majority of the capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b) of the General Corporation Law.

3. Dividends. Dividends may be declared and paid on Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend rights of any then outstanding Preferred Stock.

4. Liquidation. Upon the dissolution or liquidation of the Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive all assets of the Corporation available for distribution to its stockholders, subject to any preferential rights of any then outstanding Preferred Stock.

B) PREFERRED STOCK.

The Preferred Stock has the following rights, preferences, powers, privileges and restrictions, qualifications and limitations.

1. Dividends.

(a) The holders of shares of Preferred Stock shall be entitled to receive dividends in any fiscal year, when, as and if declared by the Board of Directors, out of any assets at the time legally available therefor, provided that such dividend payable on the Series C Preferred Stock and Series B Preferred Stock shall not be lesser than the amount of any dividend to be paid on any other class or series of capital stock of the Corporation. Any dividends may, at the option of the holder of Preferred Stock, be paid to such holder in such number of shares of Common Stock determined in accordance with the then effective Conversion Price (as defined below), as applicable.

(b) The Corporation shall not declare or pay any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless each of the holders of the Series C Preferred Stock and Series B Preferred Stock then outstanding shall have first received, or there shall have been declared and set aside for payment, a cash dividend on each outstanding share of Series C Preferred Stock and Series B Preferred Stock in an amount at least equal to the product of (i) the per share amount, if any, of the dividends to be declared, paid or set aside for the Common Stock, multiplied by (ii) the number of shares of Common Stock into which such share of Series C Preferred Stock or Series B Preferred Stock, as applicable, is then convertible.

(c) Thereafter, the Corporation shall not declare or pay any cash dividends on shares of Common Stock unless each of the holders of the Series A-4 Preferred Stock and Junior Preferred Stock (as defined below) then outstanding shall have first received, or there shall have been declared and set aside for payment, a cash dividend on each outstanding share of Series A-4 Preferred Stock and Junior Preferred Stock in an amount equal to the product of (i) the per share amount, if any, of the dividends to be declared, paid or set aside for the Common Stock, multiplied by (ii) the number of shares of Common Stock into which such share of Series A-4 Preferred Stock and Junior Preferred Stock is then convertible.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

(a) Liquidation Amount.

(i) Reference is hereby made to the Corporation's amended and restated certificate of incorporation as it was amended and restated on August 25, 2011, whereby effective immediately and automatically upon the filing by the Corporation with the Secretary of State of the State of Delaware of such amended and restated certificate of incorporation (the "Recapitalization Effective Time"), (A) each share of the Corporation's Series A Convertible Preferred Stock, $0.001 par value per share ("Pre-Recapitalization Series A Preferred Stock"), outstanding or issued and held in treasury immediately prior to the Recapitalization Effective Time was reclassified into one share of the Corporation's Series A-l Preferred Stock, (B) each share of the Corporation's Series B Convertible Preferred Stock, $0.001 par value per share ("Pre-Recapitalization Series B Preferred Stock"), outstanding or issued and held in treasury immediately prior to the Recapitalization Effective Time was reclassified into such number of shares of Series A-l Preferred Stock equal to the quotient of $1.43 divided by $1.32, and (C) each share of the Corporation's Series C Convertible Preferred Stock, $0.001 par value per share ("Pre-Recapitalization Series C Preferred Stock"), outstanding or issued and held in treasury immediately prior to the Recapitalization Effective Time was reclassified into one share of Series A-l Preferred Stock.

(ii) In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of the Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock (together with the Series A-l Preferred Stock and the Series A-2 Preferred Stock, the "Junior Preferred Stock"), Series A-4 Preferred Stock, Series B Preferred Stock, the Common Stock or any other class or series of stock ranking on liquidation junior to the Series C Preferred Stock by reason of their ownership thereof, an amount equal to the greater of (A) the Series C Per Share Liquidation Amount (as defined below) plus any dividends declared but unpaid thereon, and (B) such amount per share as would have been payable had each such share of Series C Preferred Stock (but no other shares of Preferred Stock) converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up. If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets of the Corporation available for distribution to its stockholders shall be insufficient to pay each of the holders of the Series C Preferred Stock the full amount to which such holder shall be entitled, the holders of the Series C Preferred Stock shall share ratably in any distribution of the remaining assets and funds of the Corporation in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(iii) In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, following any payments made to the holders of Series C Preferred Stock pursuant to the preceding paragraph, the holders of shares of the Series B Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of Junior Preferred Stock, Series A-4 Preferred Stock, the Common Stock or any other class or series of stock ranking on liquidation junior to the Series B Preferred Stock by reason of their

ownership thereof, an amount equal to the greater of (A) the Series B Per Share Liquidation Amount (as defined below) plus any dividends declared but unpaid thereon, and (B) such amount per share as would have been payable had each such share of Series B Preferred Stock (but no other shares of Preferred Stock) converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up. If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets of the Corporation available for distribution to its stockholders shall, following payment to the holders of the Series C Preferred Stock under Section 2(a)(ii) above, be insufficient to pay each of the holders of the Series B Preferred Stock the full amount to which such holder shall be entitled, the holders of the Series B Preferred Stock and any class or series of stock ranking on liquidation on a parity with the Series B Preferred Stock shall share ratably in any distribution of the remaining assets and funds of the Corporation in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(iv) In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, following any payments made to the holders of Series C Preferred Stock and Series B Preferred Stock pursuant to the immediately preceding paragraphs, the holders of shares of the Series A-4 Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of Junior Preferred Stock, the Common Stock or any other class or series of stock ranking on liquidation junior to the Series A-4 Preferred Stock by reason of their ownership thereof, an amount equal to the greater of (A) the Series A-4 Per Share Liquidation Amount (as defined below) plus any dividends declared but unpaid thereon, and (B) such amount per share as would have been payable had each such share of Series A-4 Preferred Stock converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up, subject to the Liquidation Cap (as defined below). If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets of the Corporation available for distribution to its stockholders shall, following payment to the holders of the Series C Preferred Stock and Series B Preferred Stock under Sections 2(a)(ii) and (iii) above, be insufficient to pay each of the holders of the Series A-4 Preferred Stock the full amount to which such holder shall be entitled, the holders of the Series A-4 Preferred Stock and any class or series of stock ranking on liquidation on a parity with the Series A-4 Preferred Stock shall share ratably in any distribution of the remaining assets and funds of the Corporation in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(v) In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, following any payments made to the holders of Series C Preferred Stock, Series B Preferred Stock and Series A-4 Preferred Stock pursuant to the preceding paragraphs, the holders of shares of the Junior Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of the Common Stock or any other class or series of stock ranking on liquidation junior to the Junior Preferred Stock by reason of their ownership thereof, an amount equal to (A) in the case of the Series A-1 Preferred Stock, the greater of (I) the applicable Series A-1 Per Share Liquidation Amount (as defined below) plus any dividends declared but unpaid thereon, or (II) such amount per share as would have

been payable had each such share of Series A-1 Preferred Stock converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up, (B) in the case of the Series A-2 Preferred Stock, the greater of (I) the Series A-2 Per Share Liquidation Amount (as defined below) plus any dividends declared but unpaid thereon, or (II) such amount per share as would have been payable had each such share of Series A-2 Preferred Stock converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up, and (C) in the case of the Series A-3 Preferred Stock, the greater of (I) the Series A-3 Per Share Liquidation Amount (as defined below) plus any dividends declared but unpaid thereon, or (II) such amount per share as would have been payable had each such share of Series A-3 Preferred Stock converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up. In calculating whether a particular series of Junior Preferred Stock would receive upon conversion more than its stated liquidation amount, the conversion of each other series of Junior Preferred Stock is to be assumed if and only if such other series of Junior Preferred Stock would receive upon such conversion more than its stated liquidation amount. The combined aggregate Series A-4 Per Share Liquidation Amount and Junior Preferred Liquidation Amount payable pursuant to Section 2(a)(iv) and Section 2(a)(v) shall not exceed forty eight million dollars ($48,000,000) (the "Liquidation Cap"). The aggregate Series A-1 Per Share Liquidation Amount payable pursuant to clause (A) of this Section 2(a)(v) shall in no event exceed $29,806,552. If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets of the Corporation available for distribution to its stockholders shall be insufficient to pay each of the holders of the Junior Preferred Stock the full amount to which such holder shall be entitled, the holders of the Junior Preferred Stock and any class or series of stock ranking on liquidation on a parity with the Junior Preferred Stock shall share ratably in any distribution of the remaining assets and funds of the Corporation in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(vi) For purposes of this Article FOURTH, the following definitions shall apply:

(A) "Junior Preferred Liquidation Amount" means, collectively, the Series A-1 Per Share Liquidation Amount, Series A-2 Per Share Liquidation Amount, and Series A-3 Per Share Liquidation Amount;

(B) "Series A-1 Per Share Liquidation Amount" means, at a time of determination:

(1) for each share of Series A-1/A Preferred Stock, $0.4058 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-1/A Preferred Stock);

(2) for each share of Series A-1/B Preferred Stock, $0.4503 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-1/B Preferred Stock); and

(3) for each share of Series A-1/C Preferred Stock, $0.4002 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-1/C Preferred Stock);

(C) "Series A-2 Per Share Liquidation Amount" means $0.3397 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-2 Preferred Stock);

(D) "Series A-3 Per Share Liquidation Amount" means $0.6245 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-3 Preferred Stock);

(E) "Series A-4 Per Share Liquidation Amount" means $0.30 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-4 Preferred Stock);

(F) "Series B Per Share Liquidation Amount" means $0.30 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series B Preferred Stock); and

(G) "Series C Per Share Liquidation Amount" means $0.38811 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series C Preferred Stock).

(vii) Any sale, assignment, transfer or other disposition, whether voluntarily or by operation of law (collectively, "Transfer"), of any shares of Preferred Stock shall be void and shall transfer no right, title, or interest in or to such shares to the purported transferee (the "Transferee") unless prior to such Transfer the purported transferor (the "Transferor") of such shares delivers to the Secretary of the Corporation written notice of such Transfer (the "Transfer Notice"). The Transfer Notice shall specify: (i) the name and address of the Transferee and (ii) the number of shares of Preferred Stock subject to the Transfer.

(b) After the payment of all preferential amounts required to be paid to the holders of Series C Preferred Stock, Series B Preferred Stock, Series A-4 Preferred Stock, Junior Preferred Stock and any other class or series of stock of the Corporation ranking on liquidation on a parity with the Series C Preferred Stock, Series B Preferred Stock, Series A-4 Preferred Stock, or Junior Preferred Stock, upon the dissolution, liquidation or winding up of the Corporation, any remaining assets and funds of the Corporation available for distribution to stockholders shall be distributed among the holders of the then outstanding Common Stock, pro rata according to the number of shares of Common Stock held by such holders.

(c) A merger or consolidation in which the Corporation is a constituent party (except any such merger or consolidation involving the Corporation in which the holders of capital stock of the Corporation immediately prior to such merger or consolidation continue to hold immediately following such merger or consolidation a majority by voting power of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such resulting or surviving corporation, in each case in substantially the same proportions as such stockholders held the outstanding stock of the Corporation immediately prior thereto), or the sale, conveyance, lease, or other transfer (including by an irrevocable, exclusive, worldwide license having a duration of not less than the then-remaining life of the patents included in such license) of all or substantially all of the assets of the Corporation (except where such sale, conveyance, lease or other transfer is to a wholly owned subsidiary of the Corporation) shall be deemed to be a liquidation, dissolution or winding up of the Corporation for purposes of this Section 2 unless (A) the holders of a majority of the then outstanding shares of Preferred Stock voting together as a separate class on an as-converted basis, and (B) the holders of a majority of the then outstanding shares of Series C Preferred Stock voting together as a separate class on an as-converted basis, elect otherwise by giving written notice thereof to the Corporation before the effective date of such event. The Corporation shall promptly provide to the holders of shares of Preferred Stock such information concerning the terms of such merger, consolidation, sale, conveyance, lease or other transfer (including by an irrevocable, exclusive, worldwide license having a duration of not less than the then-remaining life of the patents included in such license) and the value of the assets of the Corporation in order to assist the holders of shares of Preferred Stock in determining whether to make such an election. The amount deemed distributed to the holders of Preferred Stock or Common Stock in connection with a transaction referred to in this Section 2(c) shall be the cash or the value of the property, rights or other securities distributed to such holders by the acquiring person, firm or other entity, or in the case of a sale, conveyance, lease or other transfer (including by an irrevocable, exclusive, worldwide license having a duration of not less than the then-remaining life of the patents included in such license) of assets, shall be the cash or the value of the property, rights or other securities distributed to such holder of capital stock of the Corporation in a dividend relating to such transaction. The value or property, rights or other securities shall be determined by and in the good faith discretion of the Board of Directors. Payment of preferential amounts required to be paid to the holders of Preferred Stock shall constitute a redemption of such Preferred Stock, and after such payment such shares of Preferred Stock shall cease to be outstanding for any purpose.

3. Voting.

(a) Each holder of outstanding shares of Preferred Stock shall be entitled to the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are then convertible (as adjusted from time to time pursuant to Section 4 hereof), at each meeting of stockholders of the Corporation (and written actions of stockholders in lieu of meetings) with respect to any and all matters presented to the stockholders of the Corporation for their action or consideration. Except as provided by law, or as otherwise set forth in this Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class on any actions to be taken by the stockholders of the Corporation.

(b) In addition to any other vote required by law or this Amended and Restated Certificate of Incorporation, without the written consent or affirmative vote of the holders of a majority of the shares of Series A-l Preferred Stock then outstanding, the Corporation shall not, either directly or by amendment, merger, consolidation or otherwise, amend or repeal the rights, preferences or privileges of the Series A-1 Preferred Stock set forth in this Amended and Restated Certificate of Incorporation, in a manner that adversely affects the holders of the Series A-l Preferred Stock.

(c) In addition to any other vote required by law or this Amended and Restated Certificate of Incorporation, without the written consent or affirmative vote of the holders of at least sixty-five percent (65%) of the shares of Series A-2 Preferred Stock then outstanding, the Corporation shall not, either directly or by amendment, merger, consolidation or otherwise, amend or repeal the rights, preferences or privileges of the Series A-2 Preferred Stock set forth in this Amended and Restated Certificate of Incorporation, in a manner that adversely affects the holders of the Series A-2 Preferred Stock.

(d) In addition to any other vote required by law or this Amended and Restated Certificate of Incorporation, without the written consent or affirmative vote of the holders of at least sixty-five percent (65%) of the shares of Series A-3 Preferred Stock then outstanding, the Corporation shall not, either directly or by amendment, merger, consolidation or otherwise, amend or repeal the rights, preferences or privileges of the Series A-3 Preferred Stock set forth in this Amended and Restated Certificate of Incorporation, in a manner that adversely affects the holders of the Series A-3 Preferred Stock.

(e) In addition to any other vote required by law or this Amended and Restated Certificate of Incorporation, without the written consent or affirmative vote of the holders of at least sixty-five percent (65%) of the shares of Series A-4 Preferred Stock then outstanding, the Corporation shall not, either directly or by amendment, merger, consolidation or otherwise, amend or repeal the rights, preferences or privileges of the Series A-4 Preferred Stock set forth in this Amended and Restated Certificate of Incorporation, in a manner that adversely affects the holders of the Series A-4 Preferred Stock.

(f) In addition to any other vote required by law or this Amended and Restated Certificate of Incorporation, without the written consent or affirmative vote of the holders of a majority of the shares of Series B Preferred Stock then outstanding, the Corporation shall not, either directly or by amendment, merger, consolidation or otherwise, amend or repeal the rights, preferences or privileges of the Series B Preferred Stock set forth in this Amended and Restated Certificate of Incorporation, in a manner that adversely affects the holders of the Series B Preferred Stock.

(g) In addition to any other vote required by law or this Amended and Restated Certificate of Incorporation, without the written consent or affirmative vote of the holders of a majority of the shares of Series C Preferred Stock then outstanding, the Corporation shall not, either directly or by amendment, merger, consolidation or otherwise, amend or repeal the rights, preferences or privileges of the Series C Preferred Stock set forth in this Amended and Restated Certificate of Incorporation, in a manner that adversely affects the holders of the Series C Preferred Stock.

(h) The holders of record of the shares of Series A-3 Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (the "Series A-3 Director"); the holders of record of the shares of Series A-4 Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (the "Series A-4 Director"); the holders of record of the shares of Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (the "Series B Director,"); and the holders of record of the shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (the "Series C Director," and, together with the Series A-3 Director, the Series A-4 Director and the Series B Director, the "Preferred Directors"). Any director elected as provided in the preceding sentence may be removed with or without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital 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. If the holders of shares of Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Subsection 3(h), then any directorship not so filled shall remain vacant until such time as the holders of the Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Preferred Stock), voting together as a single class, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3(h), a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3(h). The rights of the holders of the Series A-3 Preferred Stock under the first sentence of this Subsection 3(h) shall terminate on the first date following the Series C Original Issue Date (as defined below) on which there are issued and outstanding less than Twenty Two Million Five Hundred Fifty-Two Thousand Eight Hundred Sixty-Five (22,552,865) shares of Series A-3 Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series A-3 Preferred Stock). The rights of the holders of the Series A-4 Preferred Stock under the first sentence of this Subsection 3(h) shall terminate on the first date following the Series C Original Issue Date (as defined below) on which there are issued and outstanding less than Fourteen Million Nine Hundred Ninety-Nine Thousand Nine Hundred Ninety-Nine 14,999,999 shares of Series A-4 Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series A-4 Preferred Stock). The rights of the holders of the Series B Preferred Stock under the first sentence of this Subsection 3(h) shall terminate on the first date following the Series C Original Issue Date (as

defined below) on which there are issued and outstanding less than Seven Million (7,000,000) shares of Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series B Preferred Stock). The rights of the holders of the Series C Preferred Stock under the first sentence of this Subsection 3(h) shall terminate on the first date following the Series C Original Issue Date (as defined below) on which there are issued and outstanding less than Seven Million (7,000,000) shares of Series C Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series C Preferred Stock).

(i) In addition to any other rights provided by law, so long as at least Seven Million (7,000,000) shares of Series C Preferred Stock (such number to be proportionately adjusted in the event of any stock splits, stock dividends, recapitalizations or similar events occurring after the date hereof and affecting the number of issued and outstanding shares of Preferred Stock) are outstanding, the Corporation shall not, without the prior written consent or affirmative vote of the holders of a majority of the then outstanding shares of Series C Preferred Stock, voting together as a separate class on an as-converted basis, take any of the following actions (whether by merger, consolidation or otherwise):

(i) effect or obligate itself to effect, any merger, sale, lease, assignment, transfer or other conveyance (including by an irrevocable, exclusive, worldwide license having a duration of not less than the then-remaining life of the patents included in such license) of all or substantially all of the assets of the Corporation and its subsidiaries, taken as a whole, or any consolidation, merger or reorganization involving the Corporation or any subsidiary thereof, or any dissolution, liquidation or winding up of the Corporation;

(ii) authorize or issue any new or existing class or classes or series of capital stock having any preference or priority as to dividends, liquidation preferences or redemption rights superior to or on a parity with the Series C Preferred Stock, or authorize or issue shares of stock of the Corporation of any class or any bonds, debentures, notes or other obligations convertible into or exchangeable for, or having rights to purchase, any shares of stock of the Corporation having any preference or priority as to dividends, liquidation preferences or redemption rights superior to or on a parity with the Series C Preferred Stock;

(iii) amend or delete any provision of, or add any provision to, this Amended and Restated Certificate of Incorporation;

(iv) purchase or redeem or pay any dividend on any capital stock prior to the Series C Preferred Stock;

(v) increase the number of shares of Common Stock available to be granted to employees, directors or consultants of the Corporation pursuant to any of the Corporation's equity incentive plans, except as provided in any such plan that has been approved either by the Board of Directors, including a majority of the Preferred Directors;

(vi) enter into any transaction with any affiliate of the Corporation (as defined in Rule 144 under the Securities Act (as defined below)) except for compensation and expense reimbursement arrangements with officers and outside directors in the ordinary course of business;

(vii) grant any contractual rights to register shares of the Company's capital stock under the Securities Act (other than pursuant to the Seventh Amended and Restated Investor Rights Agreement, dated on or about the date this Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, by and among the Corporation and the other parties named therein, as such Seventh Amended and Restated Investor Rights Agreement may be amended from time to time in accordance with its terms (the "Investor Rights Agreement");

(viii) reclassify any shares of capital stock of the Corporation; or

(ix) change the number of seats on the Board of Directors from eight (8) to any other number.

(j) In addition to any other rights provided by law, so long as at least Twenty Million (20,000,000) shares of Preferred Stock (such number to be proportionately adjusted in the event of any stock splits, stock dividends, recapitalizations or similar events occurring after the date hereof and affecting the number of issued and outstanding shares of Preferred Stock) are outstanding, the Corporation shall not, without the prior written consent or affirmative vote of the holders of a majority of the then outstanding shares of Preferred Stock, voting together as a separate class on an as-converted basis, take any of the following actions (whether by merger, consolidation or otherwise):

(i) effect or obligate itself to effect, any merger, sale, lease, assignment, transfer or other conveyance (including by an irrevocable, exclusive, worldwide license having a duration of not less than the then-remaining life of the patents included in such license) of all or substantially all of the assets of the Corporation and its subsidiaries, taken as a whole, or any consolidation, merger or reorganization involving the Corporation or any subsidiary thereof, or any dissolution, liquidation or winding up of the Corporation;

(ii) authorize or issue any new or existing class or classes or series of capital stock having any preference or priority as to dividends, liquidation preferences or redemption rights superior to or on a parity with the Preferred Stock, or authorize or issue shares of stock of the Corporation of any class or any bonds, debentures, notes or other obligations convertible into or exchangeable for, or having rights to purchase, any shares of stock of the Corporation having any preference or priority as to dividends, liquidation preferences or redemption rights superior to or on a parity with the Preferred Stock;

(iii) amend or delete any provision of, or add any provision to, this Amended and Restated Certificate of Incorporation;

(iv) increase the number of shares of Common Stock available to be granted to employees, directors or consultants of the Corporation pursuant to any of the Corporation's equity incentive plans, except as provided in any such plan that has been approved either by the Board of Directors, including a majority of the Preferred Directors;

(v) enter into any transaction with any affiliate of the Corporation (as defined in Rule 144 under the Securities Act (as defined below)) except for compensation and expense reimbursement arrangements with officers and outside directors in the ordinary course of business;

(vi) grant any contractual rights to register shares of the Company's capital stock under the Securities Act (other than pursuant to the Investor Rights Agreement);

(vii) reclassify any shares of capital stock of the Corporation; or

(viii) increase or decrease the size of the Board of Directors.

As used in this Amended and Restated Certificate of Incorporation, "Securities Act" means the Securities Act of 1933, as amended, or any successor federal statute, and the rules and regulations of the Securities and Exchange Commission issued under such Act, as they each may, from time to time, be in effect.

4. Optional Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert. Each share of Series A-l Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.4162 (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-l Preferred Stock) by the Series A-l Conversion Price (as defined below) in effect at the time of conversion. Each share of Series A-2 Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.3397 (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-2 Preferred Stock) by the Series A-2 Conversion Price (as defined below) in effect at the time of conversion. Each share of Series A-3 Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.6245 (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-3 Preferred Stock) by the Series A-3 Conversion Price (as defined below) in effect at the time of conversion. Each share of Series A-4 Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.30 (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and

outstanding shares of Series A-4 Preferred Stock) by the Series A-4 Conversion Price (as defined below) in effect at the time of conversion. Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.30 (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series B Preferred Stock) by the Series B Conversion Price (as defined below) in effect at the time of conversion. Each share of Series C Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.38811 (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series C Preferred Stock) by the Series C Conversion Price (as defined below) in effect at the time of conversion. The "Series A-l Conversion Price" shall mean $0.4162 at the date hereof, the "Series A-2 Conversion Price" shall mean $0.3397 at the date hereof, the "Series A-3 Conversion Price" shall mean $0.6245 at the date hereof, the "Series A-4 Conversion Price" shall mean $0.30 at the date hereof, the "Series B Conversion Price" shall mean $0.30 at the date hereof, and the "Series C Conversion Price" shall mean $0.38811 at the date hereof. The "Conversion Price" shall mean, collectively, the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, and Series C Conversion Price, as applicable. Such initial Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, and Series C Conversion Price, and the rate at which shares of Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(i) In the event of a notice of redemption of any shares of Preferred Stock pursuant to Section 6 hereof, the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the full day preceding the date fixed for redemption, unless the redemption price is not fully paid when due, in which case the Conversion Rights for such shares shall continue until such price is paid in full. In the event of a liquidation, dissolution or winding up of the Corporation, the Conversion Rights shall terminate at the close of business on the second full day preceding the date fixed for the payment of any amounts distributable on such event to the holders of Preferred Stock.

(b) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be.

(c) Mechanics of Conversion.

(i) In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Preferred Stock (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of Preferred Stock represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his or its attorney duly authorized in writing. The date of receipt of such certificates (or lost certificate affidavit and agreement) and notice by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) shall be the conversion date ("Conversion Date"), and such conversion shall be effective at the close of business on the Conversion Date. The Corporation shall, as soon as practicable after the Conversion Date, issue and deliver to such holder of Preferred Stock, or to his or its nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled, together with cash in lieu of any fraction of a share.

(ii) The Corporation shall at all times when any Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of 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 Amended and Restated Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price.

(iii) Upon any such conversion, no adjustment to the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price shall be made for any declared but unpaid dividends on the Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

(iv) All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote, shall immediately cease and terminate at the close of business on the Conversion Date, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided above and to receive payment of any dividends declared but unpaid thereon as of the close of business on the Conversion Date. Any shares of Preferred Stock so converted shall be retired and cancelled and shall not be reissued, and the Corporation (without the need for stockholder action) may from time to time take such appropriate action as may be necessary to reduce the authorized number of shares of such series of Preferred Stock accordingly.

(v) The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

(d) Adjustments to Conversion Prices for Diluting Issues:

(i) Special Definitions. For purposes of this Article FOURTH, the following definitions shall apply:

(A) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(B) "Series C Original Issue Date" shall mean the first date on which a share of Series C Preferred Stock was issued.

(C) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(D) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4(d)(iii) below, deemed to be issued) by the Corporation after the Series C Original Issue Date other than:

(I) shares of Common Stock issued or issuable upon conversion or exchange of any Convertible Securities or exercise of any Options outstanding on the Series C Original Issue Date;

(II) shares of Common Stock issued or issuable as a dividend or distribution on Preferred Stock;

(III) shares of Common Stock issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4(e) or 4(f) below;

(IV) shares of Common Stock issued or issuable in a firm underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended;

(V) shares of Common Stock (or Options or Convertible Securities with respect thereto) authorized for issuance as of November 9, 2016 under the Corporation's 2005 Equity Incentive Plan, as amended (the "2005 Plan"), and the Corporation's 2016 Equity Incentive Plan, as amended (the "2016 Plan", and together with the 2005 Plan, the "Plans"), that are issued or deemed issued to employees or directors of, or consultants to, the Corporation or any of its subsidiaries pursuant to the Plans, or any additional shares of Common Stock (or Options or Convertible Securities with respect thereto) authorized for issuance pursuant to any amendment to the Plans, or pursuant to any other plan, agreement or arrangement, that are issued or deemed issued to such employees, directors or consultants, provided that any such amendment or other plan, agreement or arrangement has been approved by a majority of the Board of Directors (which majority must include a majority of the Preferred Directors);

(VI) shares of Common Stock (or Options or Convertible Securities with respect thereto) issued solely in consideration for the acquisition (whether by merger or otherwise) by the Corporation or any of its subsidiaries of all or substantially all of the stock or assets of any other entity; provided that such transaction, and the issuance of shares in connection therewith, has been approved by a majority of the Board of Directors (which majority must include a majority of the Preferred Directors);

(VII) shares of Common Stock (or Options or Convertible Securities with respect thereto) issued or issuable to financial institutions or lessors in connection with commercial credit agreements, equipment financings or similar transactions; provided that such transaction, and the issuance of shares in connection therewith, has been approved by a majority of the Board of Directors (which majority must include a majority of the Preferred Directors);

(VIII) shares of Common Stock (or Options or Convertible Securities with respect thereto) issued or issuable in connection with strategic transactions involving the Company and other entities, including joint ventures, manufacturing, marketing or distribution arrangements and technology transfer or development arrangements; provided that such strategic transactions, and the issuance of shares in connection therewith, has been approved by a majority of the Board of Directors (which majority must include a majority of the Preferred Directors); or

(IX) shares of Common Stock (or Options or Convertible Securities with respect thereto) issued or issuable pursuant to that certain Series C Convertible Preferred Stock and Warrant Purchase Agreement, by and among the Corporation and the investors party thereto, as amended from time to time.

(ii) No Adjustment of Conversion Prices. No adjustment in the number of shares of Common Stock into which the Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock, respectively, is convertible shall be made, by adjustment in the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price thereof: (a) unless the consideration per share (determined pursuant to Subsection 4(d)(vi)) for an Additional Share of Common Stock issued or deemed to be issued by the Corporation is less than the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price in effect immediately prior to the issue of such Additional Shares of Common Stock, or (b) if prior to such issuance, the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of Series A-l Preferred Stock, the holders of at least a majority of the then outstanding shares of Series A-2 Preferred Stock, the holders of at least a majority of the then outstanding shares of Series A-3 Preferred Stock, the holders of at least a majority of the then outstanding shares of Series A-4 Preferred Stock, the holders of at least a majority of the then outstanding shares of Series B Preferred Stock, or the holders of at least a majority of the then outstanding shares of Series C Preferred Stock, as the case may be, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

(iii) Issue of Securities Deemed Issue of Additional Shares of Common Stock. If the Corporation at any time or from time to time after the Series C Original Issue Date shall issue any Options (excluding Options covered by Subsection 4(d)(i)(D)(I), (IV), (V), (VI) and (VII) above) or Convertible Securities (excluding Convertible Securities covered by Subsection 4(d)(i)(D)(I), (V), (VI) and (VII) above) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that in any such case in which Additional Shares of Common Stock are deemed to be issued:

(A) No adjustment or further adjustment in the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities;

(B) If such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, upon the exercise, conversion or exchange thereof, the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities;

(C) Upon the expiration or termination of any unexercised Option, the affected Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price shall be readjusted to the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price that would be in effect had such Option never been issued, and the Additional Shares of Common Stock deemed issued as the result of the original issue of such Option shall not be deemed issued for the purposes of any subsequent adjustment of the affected Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price;

(D) In the event of any change in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security, including, but not limited to, a change resulting from the anti-dilution provisions thereof (but excluding any change resulting from any events resulting in changes under Section 4(e) or 4(f) below), the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price then in effect shall forthwith be readjusted to such Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price as would have obtained had the adjustment which was made upon the issuance of such Option or Convertible Security not exercised or converted prior to such change been made upon the basis of such change; and

(E) No readjustment pursuant to clause (B), (C) or (D) above shall have the effect of increasing the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price to an amount which exceeds the lower of (i) such Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price on the original adjustment date, or (ii) the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock between the original adjustment date and such readjustment date.

In the event the Corporation, after the Series C Original Issue Date, amends the terms of any such Options or Convertible Securities (whether such Options or Convertible Securities were outstanding as of the Series C Original Issue Date or were issued after the Series C Original Issue Date), then such Options or Convertible Securities, as so amended, shall be deemed to have been issued after the Series C Original Issue Date and the provisions of this Subsection 4(d)(iii) shall apply.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4(d)(iii), but excluding shares issued as a stock split or combination as provided in Subsection 4(e) or upon a dividend or distribution as provided in Subsection 4(f)), without consideration or for a consideration per share less than the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price in effect immediately prior to such issue, then and in such event, such Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock by a fraction, (A) the numerator of which shall be (1) the number of shares of Common Stock outstanding immediately prior to such issue (calculated assuming conversion of all issued and outstanding shares of Preferred Stock as well as all other issued and outstanding Convertible Securities, and the exercise, exchange or conversion of all then outstanding Options) plus (2) the number of shares of Common Stock which the aggregate consideration received or to be received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock; and (B) the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue (calculated assuming conversion of all issued and outstanding shares of Preferred Stock as well as all other issued and outstanding Convertible Securities, and the exercise, exchange or conversion of all then outstanding Options) plus the number of such Additional Shares of Common Stock so issued; provided that, the number of shares of Common Stock deemed issuable upon exercise or conversion of such outstanding Options and Convertible Securities shall not give effect to any adjustments to the conversion price or conversion rate of such Options or Convertible Securities resulting from the issuance of Additional Shares of Common Stock that is the subject of this calculation.

(v) [Reserved.]

(vi) Determination of Consideration. For purposes of this Subsection 4(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property: Such consideration shall:

(I) insofar as it consists of cash, be computed at the aggregate of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(II) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(III) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4(d)(iii), relating to Options and Convertible Securities, shall be determined by dividing:

(I) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(II) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vii) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock which are comprised of shares of the same series or class of Preferred Stock, and such issuance dates occur within a period of no more than one hundred eighty (180) days, then, upon the final such issuance, the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price shall be adjusted to give effect to all such issuances as if they occurred on the date of the final such issuance (and without giving effect to any adjustments as a result of such prior issuances within such period).

(e) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series C Original Issue Date effect a subdivision of the outstanding Common Stock without a comparable subdivision of the Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock, the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price then in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock

issuable on conversion of each share of Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series C Original Issue Date combine the outstanding shares of Common Stock without a comparable combination of the Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock, the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price then in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time, or from time to time after the Series C Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price then in effect by a fraction:

(i) the numerator of which shall be the total number of shares of Common Stock actually issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(ii) the denominator of which shall be the total number of shares of Common Stock actually issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, plus the number of shares of Common Stock issuable in payment of such dividend or distribution to the holders of Common Stock; provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions; and provided further, however, that no such adjustment shall be made with respect to the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price if the holders of Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B

Preferred Stock, or Series C Preferred Stock, as the case may be, simultaneously receive (i) a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock had been converted into Common Stock on the date of such event or (ii) a dividend or other distribution of shares of Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock which are convertible, as of the date of such event, into such number of shares of Common Stock as is equal to the number of additional shares of Common Stock being issued with respect to each share of Common Stock in such dividend or distribution.

(g) Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series C Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation other than shares of Common Stock, then and in each such event each holder of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities in an amount equal to the amount of such securities as such holder would have received if all shares of Preferred Stock owned by such holder had been converted into Common Stock on the date of such event.

(h) Adjustment for Reclassification, Exchange, or Substitution. If the Common Stock issuable upon the conversion of the Preferred Stock shall be changed into the same or a different number of shares of any class or classes of stock, whether by capital reorganization, reclassification, or otherwise (other than a subdivision or combination of shares or stock dividend provided for above, or a reorganization, merger, consolidation, or sale of assets provided for below), then and in each such event the holder of each such share of Preferred Stock shall have the right thereafter to convert such share into the kind and amount of shares of stock and other securities and property receivable, upon such reorganization, reclassification, or other change, by holders of the number of shares of Common Stock into which such shares of Preferred Stock might have been converted immediately prior to such reorganization, reclassification, or change, all subject to further adjustment as provided herein.

(i) Adjustment for Merger or Reorganization, etc. In case of any consolidation or merger of the Corporation with or into another corporation or the sale of all or substantially all of the assets of the Corporation to another corporation (other than a consolidation, merger or sale which is covered by Subsection 2(c)), each share of Preferred Stock shall thereafter be convertible (or shall be converted into a security which shall be convertible) into the kind and amount of shares of stock or other securities or property to which a holder of the number of shares of Common Stock of the Corporation deliverable upon conversion of such Preferred Stock would have been entitled upon such consolidation, merger or sale; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors) shall be made in the application of the provisions in this Section 4 set forth with respect to the rights and interest thereafter of the holders of Preferred Stock to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Series A- 1 Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4

Conversion Price, Series B Conversion Price, or Series C Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any shares of stock or other property thereafter deliverable upon the conversion of the Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock.

(j) No Impairment. The Corporation will not, by amendment of this Amended and Restated Certificate of Incorporation or through any 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 Section 4 by the Corporation, without the written consent of the holders of a majority of the then outstanding shares of Preferred Stock, consenting together as a separate class on an as-converted basis, but will at all times in good faith assist in the carrying out of all the provisions of this Section 4 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of the Preferred Stock against impairment.

(k) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price pursuant to this Section 4, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder 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. The 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 similar certificate setting forth (i) such adjustments and readjustments, (ii) the Series A-l Conversion Price, Series A-2 Conversion Price, Series A-3 Conversion Price, Series A-4 Conversion Price, Series B Conversion Price, or Series C Conversion Price then in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which then would be received upon the conversion of Series A-l Preferred Stock, Series A-2 Preferred Stock, Series A-3 Preferred Stock, Series A-4 Preferred Stock, Series B Preferred Stock, or Series C Preferred Stock.

(1) Notice of Record Date. In the event:

(i) that the Corporation declares a dividend (or any other distribution) on its Common Stock payable in Common Stock or other securities of the Corporation;

(ii) that the Corporation subdivides or combines its outstanding shares of Common Stock;

(iii) of any reclassification of the Common Stock of the Corporation (other than a subdivision or combination of its outstanding shares of Common Stock or a stock dividend or stock distribution thereon), or of any consolidation or merger of the Corporation into or with another corporation, or of the sale of all or substantially all of the assets of the Corporation; or

(iv) of the involuntary or voluntary dissolution, liquidation or winding up of the Corporation;

then the Corporation shall use reasonable efforts to cause to be filed at its principal office or at the office of the transfer agent of the Preferred Stock, and shall cause to be mailed to the holders of the Preferred Stock or such transfer agent, at least ten (10) days prior to the date specified in (A) below or twenty (20) days before the date specified in (B) below, a notice stating

(A) the record date of such dividend, distribution, subdivision or combination, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, subdivision or combination are to be determined, or

(B) the date on which such reclassification, consolidation, merger, sale, dissolution, liquidation or winding up is expected to become effective, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities or other property deliverable upon such reclassification, consolidation, merger, sale, dissolution or winding up; provided, however, that the Corporation's failure to provide any notice required under this Section 4(1) after using reasonable efforts shall not be deemed a default, breach or violation of this Section 4(1).

5. Mandatory Conversion.

(a) Upon the earlier of (i) the closing of the sale of shares of Common Stock in a firm underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least Forty Million Dollars ($40,000,000) (net of any underwriting discount and commissions) to the Corporation or (ii) a date agreed to in writing by a vote of the holders of a majority of the then outstanding shares of Preferred Stock, voting together as a separate class on an as-converted basis (each a "Mandatory Conversion Event"), all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate.

(b) All holders of record of shares of Preferred Stock shall be given written notice of the Mandatory Conversion Event and the place and date (the "Mandatory Conversion Date") designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be given in advance of the occurrence of the Mandatory Conversion Event. Such notice shall be sent by first class or registered mail, postage prepaid, or given by electronic communication in compliance with the provisions of the General Corporation Law, to each record holder of Preferred Stock. Upon receipt of such notice, each holder of shares of Preferred Stock shall surrender his or its certificate or certificates for all such shares to the Corporation at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 5. On the Mandatory Conversion Date, all outstanding shares of Preferred Stock shall be deemed to have been converted into shares of Common Stock, which shall be deemed to be outstanding of record, and all rights with respect to the Preferred Stock so converted, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock) will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor, to

receive certificates for the number of shares of Common Stock into which such Preferred Stock has been converted, and payment of any declared but unpaid dividends thereon. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his or its attorney duly authorized in writing. As soon as practicable after the Mandatory Conversion Date and the surrender of the certificate or certificates for Preferred Stock, the Corporation shall cause to be issued and delivered to such holder, or on his or its written order, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and cash as provided in Subsection 4(b) in respect of any fraction of a share of Common Stock otherwise issuable upon such conversion.

(c) All certificates evidencing shares of Preferred Stock which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the Mandatory Conversion Date, be deemed to have been retired and cancelled and the shares of Preferred Stock represented thereby converted into Common Stock for all purposes, notwithstanding the failure of the holder or holders thereof to surrender such certificates on or prior to such date. Such converted Preferred Stock may not be reissued, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

6. Redemption.

(a) Unless prohibited by Delaware law governing distributions to stockholders, the Preferred Stock shall, if required as set forth below, be redeemed by the Corporation at a price per share equal to the applicable Redemption Price (as defined below). As used in this Amended and Restated Certificate of Incorporation, "Redemption Price" means in the case of the Series A-l Preferred Stock, $0.4162 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-l Preferred Stock) plus all declared but unpaid dividends, in the case of the Series A-2 Preferred Stock, $0.3397 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-2 Preferred Stock) plus all declared but unpaid dividends, in the case of the Series A-3 Preferred Stock, $0.6245 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-3 Preferred Stock) plus all declared but unpaid dividends, in the case of the Series A-4 Preferred Stock, $0.30 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series A-4 Preferred Stock) plus all declared but unpaid dividends, in the case of the Series B Preferred Stock, $0.30 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series B Preferred Stock) plus all declared but unpaid dividends, and in the case of the Series C Preferred Stock, $0.38811 per share (subject to appropriate adjustment in the event of any stock dividend, stock split,

combination or other similar recapitalization occurring after the date hereof and affecting the number of issued and outstanding shares of Series C Preferred Stock) plus all declared but unpaid dividends. Such redemption shall occur in three annual equal installments commencing sixty (60) days after receipt by the Corporation, at any time on or after the fifth anniversary of the Series C Original Issue Date, of written notice requesting redemption of all shares of Preferred Stock from the holders of a majority of the then outstanding shares of Preferred Stock, as follows (which must include at least 50% of the then outstanding shares of Series B Preferred Stock and 50% of the then-outstanding shares of Series C Preferred Stock):

(i) on the sixtieth (60th) day after receipt by the Corporation of the written notice described in Section 6(a), the Corporation shall redeem one-third of the shares of Preferred Stock then outstanding;

(ii) on the one-year anniversary of the redemption made pursuant to Section 6(a)(i) above, the Corporation shall redeem fifty percent (50%) of the shares of Preferred Stock then outstanding; and

(iii) on the one-year anniversary of the redemption made pursuant to Section 6(a)(ii) above, the Corporation shall redeem all of the shares of Preferred Stock then outstanding.

The date of each redemption pursuant to Section 6(a) is referred to as a "Redemption Date". On each Redemption Date, the Corporation shall redeem the number of shares of Preferred Stock determined as set forth in this Section 6(a) on a pro rata basis in accordance with the number of shares of Preferred Stock owned by each holder of Preferred Stock. Upon receipt of a redemption request, the Company shall apply all of its assets to any such redemption, and to no other corporate purpose, except to the extent prohibited by Delaware law governing distributions to stockholders. If on any Redemption Date Delaware law governing distributions to stockholders prevents the Corporation from redeeming all of the Preferred Stock to be redeemed on any Redemption Date, the Corporation shall redeem a pro rata portion of each holder's shares of Preferred Stock, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the Corporation were able to redeem all such shares under such law and shall redeem the remaining shares to have been redeemed as soon as it may lawfully do so under such law.

(b) Written notice of the mandatory redemption (the "Redemption Notice") shall be mailed, postage prepaid, to each holder of record of Preferred Stock, not less than thirty (30) days prior to each Redemption Date. Each Redemption Notice shall state:

(i) the number of shares of each class of Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;

(ii) the Redemption Date and the Redemption Price;

(iii) the date upon which the holder's right to convert such shares terminates (as determined in accordance with Section 4(a)); and

(iv) that the holder is to surrender to the Corporation, in the manner and at the place designated, his certificate or certificates representing the shares of Preferred Stock to be redeemed.

(c) Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised his right to convert such shares as provided in Section 4 hereof, shall surrender the certificate or certificates representing such shares to the Corporation (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered certificate shall be canceled and retired. In the event less than all of the shares of Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of Preferred Stock shall promptly be issued to such holder.

(d) Rights Subsequent to Redemption. If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the Redemption Price payable upon redemption of the shares of Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment, then whether or not the certificates evidencing any of the shares of Preferred Stock so called for redemption have been surrendered, dividends with respect to such shares of Preferred Stock shall cease to accrue after such Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price without interest upon surrender of their certificate or certificates (or lost certificate affidavit and agreement) therefor.

(e) Any shares of Preferred Stock redeemed pursuant to this Section 6 will be cancelled and will not under any circumstances be reissued, sold or transferred and the Corporation may from time to time take such appropriate action as may be necessary to reduce the authorized shares of Preferred Stock accordingly.

7. Waiver. Except where a different vote is specified in the Certificate of Incorporation or required by the General Corporation Law, any of the rights, powers, preferences and other terms of a series of Preferred Stock set forth herein may be waived on behalf of all holders of such series of Preferred Stock by the affirmative written consent or vote of the holders of a majority of the shares of such series of Preferred Stock then outstanding.

8. Notices. Any notice required by the provisions hereof to be given to a holder of shares of Preferred Stock shall be deemed sent to such holder if deposited in the United States mail, postage prepaid, and addressed to such holder at his, her or its address appearing on the books of the Corporation or given by electronic communication in compliance with the provisions of General Corporation Law.

FIFTH: The Corporation is to have perpetual existence.

SIXTH: Meetings of shareholders may be held within or without the State of Delaware, as the bylaws provide. The books of the Corporation may be kept outside the State of Delaware at the main office of the Corporation or such place or places as may be designated from time to time by the Board of Directors or in the bylaws of the Corporation. Elections of directors need not be by written ballot unless the bylaws of the Corporation so provide.

SEVENTH: The Board of Directors of the Corporation is expressly authorized to exercise all powers granted to the directors by law except insofar as such powers are limited or denied herein or in the bylaws of the Corporation. In furtherance of such powers, the Board of Directors is expressly authorized to adopt, amend or repeal the bylaws of the Corporation.

EIGHTH: A director of the Corporation shall not be personally liable to the 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 the corporation or its stockholders, (ii) for acts or omissions not in good faith or which 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 the effective date of this Amended and Restated Certificate of Incorporation to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law. No amendment, modification or repeal of this Article shall adversely affect the rights and protection afforded to a director of the Corporation under this Article for acts or omissions occurring prior to such amendment modification or repeal.

NINTH: The Corporation shall, to the fullest extent permitted by the General Corporation Law, as amended from time to time, indemnify each person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with such action, suit or proceeding and any appeal therefrom.

Indemnification may include payment by the Corporation in defending an action or proceeding in advance of the final disposition of such action or proceeding upon receipt of any undertaking by the person indemnified to repay such payment if it is ultimately determined that such person is not entitled to indemnification under this Article, which undertaking may be accepted without reference to the financial ability of such person to make such repayments.

The Corporation shall not indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person unless the initiation thereof was approved by the Board of Directors.

The indemnifications rights provided in this Article (A) shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any law, agreement or vote of stockholders or disinterested directors or otherwise, and (B) shall inure to the benefit of the heirs, executors and administrators of such persons. The Corporation may, to the extent authorized from time to time by its Board of Directors, grant indemnification rights to other employees or agents of the Corporation or other persons serving the Corporation and such rights may be equivalent to, or greater or less than, those set forth in this Article.

Any person seeking indemnification under this Article shall be deemed to have met the standard of conduct required for such indemnification unless the contrary shall be established.

Any amendment or repeal of the provisions of this Article shall not adversely affect any right or protection of a director or officer of this Corporation with respect to any act or omission of such director or officer occurring prior to such amendment or appeal.

TENTH: The Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "Excluded Opportunity" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "Covered Persons"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

ELEVENTH: The Corporation reserves the right at any time, and from time to time, to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, and to add or insert other provisions authorized by the laws of the State of Delaware at the time in force, in the manner now or hereafter prescribe by law; and all rights, preferences and privileges of whatsoever nature conferred upon stockholders, directors or any other persons whomsoever by and pursuant to this Amended and Restated Certificate of Incorporation in its present form or as hereafter amended are granted subject to the rights reserved in this Article.

IN WITNESS WHEREOF, the Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by its President and Chief Executive Officer on this 10th day of January, 2020.

/s/ Maria Palasis

Name: Maria Palasis
Title: President and Chief Executive Officer,
Lyra Therapeutics, Inc.

State of Delaware
Secretary of State
Division of Corporation
Delivered 11:55 AM 02/10/2020
FILED 11:55 AM 02/10/2020
SR 20201614973 - File Number 4064768

CERTIFICATE OF VALIDATION
OF
LYRA THERAPEUTICS, INC.

Pursuant to Section 204 of the
General Corporation Law of the State of Delaware

Lyra Therapeutics, Inc., a corporation existing under the laws of the State of Delaware (the "Corporation"), certifies that:

1. The defective corporate act that is the subject of this Certificate of Validation is the filing and effectiveness of the Certificate of Amendment of the Corporation, as filed with the Secretary of State of the State of Delaware on November 16, 2011 (the "Certificate of Amendment").

2. The nature of the failure of authorization in respect of the filing and effectiveness of the Certificate of Amendment was the failure of the Certificate of Amendment to have been duly adopted by the Board of Directors of the Corporation and the stockholders of the Corporation entitled to vote thereon in accordance with Section 242 of the General Corporation Law of the State of Delaware (the "DGCL").

3. The filing and effectiveness of the Certificate of Amendment was duly ratified in accordance with Section 204 of the DGCL pursuant to resolutions of the (i) Board of Directors of the Corporation adopted at a meeting on January 10, 2020 and (ii) stockholders of the Corporation adopted on January 10, 2020, with the stockholders acting by written consent in lieu of a meeting in accordance with Section 228 of the DGCL.

4. The Certificate of Amendment was previously filed under Section 103 of the DGCL on November 16, 2011 and no changes are required to give effect to the defective corporate acts that are the subject of this Certificate of Validation. A copy of the Certificate of Amendment as previously filed is attached hereto as Exhibit A.

In witness whereof, Lyra Therapeutics, Inc. has caused this Certificate of Validation to be signed by its duly authorized officer on January 14, 2020.

LYRA THERAPEUTICS, INC.

By: /s/ Maria Palasis
Name: Maria Palasis
Title: Chief Executive Officer

EXHIBIT A

CERTIFICATE OF AMENDMENT

State of Delaware
Secretary of State
Division of Corporations
Delivered 09:23 AM 11/16/2011
FILED 09:10 AM 11/16/2011
SRV 111201289 – 4064768 FILE

CERTIFICATE OF AMENDMENT

TO THE

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF
ARSENAL VASCULAR, INC.

Arsenal Vascular, Inc. (hereinafter called the ("Corporation"), organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

The Board of Directors of the Corporation duly adopted by written consent a resolution, pursuant to Section 141(f) of the General Corporation Law of the State of Delaware, setting forth an amendment to the Amended and Restated Certificate of Incorporation of the Corporation, and declaring said amendment to be advisable. The stockholders of the Corporation duly approved said proposed amendment in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware by written consent. The resolution setting forth the amendment is as follows:

RESOLVED: That the Amended and Restated Certificate of Incorporation of the Corporation (the "Certificate") be amended as follows:

Article FIRST of the Certificate is amended and restated in its entirety to read as follows:

"FIRST" The name of the Corporation is 480 Biomedical, Inc. (the "corporation").

IN WITNESS WHEREOF, the Corporation has caused this amendment to its Amended and Restated Certificate of Incorporation to be signed of this 16th day on November, 2011.

ARSENAL VASCULAR, INC.

By: /s/ Earl M. Collier, Jr.
Name: Earl M. Collier, Jr.
Title: President

CERTIFICATE OF AMENDMENT

TO

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

LYRA THERAPEUTICS, INC.

Lyra Therapeutics, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), DOES HEREBY CERTIFY:

FIRST: That the Board of Directors of the Corporation duly adopted resolutions at a meeting recommending and declaring advisable that the Amended and Restated Certificate of Incorporation of the Corporation be amended and that such amendments be submitted to the stockholders of the Corporation for their consideration, as follows:

RESOLVED, that the first and second paragraphs of Article FOURTH of the Amended and Restated Certificate of Incorporation of the Corporation be amended and restated in their entirety to read as follows:

"Effective on the filing of this Certificate of Amendment to Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware (the "**Amendment Effective Time**"), a one-for-34.483 reverse split of the Corporation's Common Stock shall become effective, pursuant to which each 34.483 shares of Common Stock outstanding and held of record by each stockholder of the Corporation (including treasury shares) immediately prior to the Amendment Effective Time shall be reclassified and combined into one validly issued, fully-paid and nonassessable share of Common Stock automatically and without any action by the holder thereof upon the Amendment Effective Time and shall represent one share of Common Stock from and after the Amendment Effective Time (such reclassification and combination of shares, the "**Reverse Stock Split**"). The par value of the Common Stock and the Preferred Stock following the Reverse Stock Split shall remain at $0.001 per share. No fractional shares of Common Stock shall be issued as a result of the Reverse Stock Split and, in lieu thereof, upon surrender after the Amendment Effective Time of a certificate which formerly represented shares of Common Stock that were issued and outstanding immediately prior to the Amendment Effective Time, any person who would otherwise be entitled to a fractional share of Common Stock as a result of the Reverse Stock Split, following the Amendment Effective Time, shall be entitled to receive a cash payment equal to the fraction of which such holder would otherwise be entitled multiplied by the fair market value per share as determined in good faith by the Board of Directors.

Each stock certificate that, immediately prior to the Amendment Effective Time, represented shares of Common Stock that were issued and outstanding immediately prior to the Amendment Effective Time shall, from and after the Amendment Effective Time, automatically and without the necessity of presenting the same for exchange, represent that number of whole shares of Common Stock after the Amendment Effective Time into which the shares formerly represented by such certificate have been reclassified (as well as the right to receive cash in lieu of fractional shares of Common Stock after the Amendment Effective Time); provided, however, that each person of record holding a certificate that represented shares of Common Stock that were issued and outstanding immediately prior to the Amendment Effective Time shall receive, upon surrender of such certificate, a new certificate evidencing and representing the number of whole shares of Common Stock after the Amendment Effective Time into which the shares of Common Stock formerly represented by such certificate shall have been reclassified; and provided further, however, that whether or not fractional shares would be issuable as a result of the Reverse Stock Split shall be determined on the basis of (i) the total number of shares of Common Stock that were issued and outstanding immediately prior to the Amendment Effective Time formerly represented by certificates that the holder is at the time surrendering for a new certificate evidencing and representing the number of whole shares of Common Stock after the Amendment Effective Time and (ii) the aggregate number of shares of Common Stock after the Amendment Effective Time into which the shares of Common Stock formerly represented by such certificates shall have been reclassified.

The total number of shares of all classes of stock which the Corporation shall have authority to issue is Four Hundred Ninety Nine Million Three Hundred Thousand Two Hundred Eighty Eight (499,300,288), of which (a) Two Hundred Million (200,000,000) shares shall be Common Stock, $0.001 par value per share ("Common Stock"), and (b) Two Hundred Ninety-Nine Million Three Hundred Thousand Two Hundred Eighty-Eight (299,300,288) shares shall be Preferred Stock, $0.001 par value per share ("Preferred Stock"), Seven Million Five Hundred Fifty-Four Thousand Six Hundred Fifty-Four (7,554,654) of which shall be designated Series A-l/A Convertible Preferred Stock ("Series A-1/A Preferred Stock"), Ten Million Five Thousand Six Hundred Seventy-Seven (10,005,677) of which shall be designated Series A-1/B Convertible Preferred Stock ("Series A-1/B Preferred Stock"), Sixteen Million Four Hundred Fifty-Six Thousand Seven Hundred Two (16,456,702) of which shall be designated Series A-1/C Convertible Preferred Stock ("Series A-1/C Preferred Stock" and, together with the Series A-1/A Preferred Stock and the Series A-1/B Preferred Stock, the "Series A-1 Preferred Stock"), Twenty-Six Million Six Hundred Eighty Thousand Two Hundred Two (26,680,202) of which shall be designated Series A-2 Convertible Preferred Stock ("Series A-2 Preferred Stock"), Thirty Million Seventy Thousand Four Hundred Eighty-Seven (30,070,487) of which shall be

designated Series A-3 Convertible Preferred Stock ("Series A-3 Preferred Stock"), Nineteen Million Nine Hundred Ninety-Nine Thousand Nine Hundred Ninety-Nine (19,999,999) of which shall be designated Series A-4 Convertible Preferred Stock ("Series A-4 Preferred Stock"), Ninety-Eight Million Three Hundred Fifty-One Thousand Nine Hundred Fifty-Three (98,351,953) of which shall be designated Series B Convertible Preferred Stock ("Series B Preferred Stock"), and Ninety Million One Hundred Eighty Thousand Six Hundred Fourteen (90,180,614) of which shall be designated Series C Convertible Preferred Stock ("Series C Preferred Stock")."

RESOLVED, that Subsection 4(b) of Part B of Article FOURTH of the Amended and Restated Certificate of Incorporation of the Corporation be amended and restated in its entirety to read as follows:

"Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors. 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 Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion."

RESOLVED, that Subsection 5(a) of Part B of Article FOURTH of the Amended and Restated Certificate of Incorporation of the Corporation be amended and restated in its entirety to read as follows:

"Upon the earlier of (i) the closing of the sale of shares of Common Stock in a firm underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least Forty Million Dollars ($40,000,000) (net of any underwriting discount and commissions) to the Corporation, (ii) the closing of the sale of shares of Common Stock to the public pursuant to the Corporation's Registration Statement on Form S-1 (Reg. No. 333-236962), or (iii) a date agreed to in writing by a vote of the holders of a majority of the then outstanding shares of Preferred Stock, voting together as a separate class on an as-converted basis (each a "Mandatory Conversion Event"), all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate."

SECOND: That in lieu of a meeting and vote of stockholders, the stockholders have given written consent to said amendments in accordance with the provisions of Section 228 of the General Corporation Law of the State of Delaware.

THIRD: That the aforesaid amendments were duly adopted in accordance with the applicable provisions of Section 242 of the General Corporation Law of the State of Delaware.

* * *

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be signed by Maria Palasis, the President and Chief Executive Officer of the Corporation, this 27th day of April, 2020.

LYRA THERAPEUTICS, INC.

By: /s/ Maria Palasis
Maria Palasis
President and Chief Executive Officer

RESTATED CERTIFICATE OF INCORPORATION

OF

LYRA THERAPEUTICS, INC.

The name of the corporation is Lyra Therapeutics, Inc. The corporation was originally incorporated by the filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware on November 21, 2005 under the corporate name WMR Biomedical, Inc. This Restated Certificate of Incorporation of the corporation, which restates and integrates and also further amends the provisions of the corporation's Certificate of Incorporation, was duly adopted in accordance with the provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware and by the written consent of its stockholders in accordance with Section 228 of the General Corporation Law of the State of Delaware. The Certificate of Incorporation of the corporation is hereby amended, integrated and restated to read in its entirety as follows:

FIRST: The name of the Corporation is Lyra Therapeutics, Inc. (the "Corporation").

SECOND: The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle, State of Delaware, Zip Code 19808. The name of its registered agent at that address is: The Corporation Trust Company.

THIRD: The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is 210,000,000 shares, consisting of (a) 200,000,000 shares of Common Stock, $0.001 par value per share ("Common Stock"), and (b) 10,000,000 shares of Preferred Stock, $0.001 par value per share ("Preferred Stock").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK.

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights of the holders of the Preferred Stock of any series as may be designated by the Board of Directors of the Corporation (the "Board of Directors") upon any issuance of the Preferred Stock of any series.

2. Voting. The holders of the Common Stock shall have voting rights at all meetings of stockholders, each such holder being entitled to one vote for each share thereof held by such holder; provided, however, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Restated Certificate of Incorporation (which, as used herein, shall mean the certificate of incorporation of the Corporation, as amended from time to time, including the terms of any certificate of designations of any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon pursuant to this Restated Certificate of Incorporation or the General Corporation Law of the State of Delaware. There shall be no cumulative voting.

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 a majority of the stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware.

3. Dividends. Dividends may be declared and paid on the Common Stock if, as and when determined by the Board of Directors subject to any preferential dividend or other rights of any then outstanding Preferred Stock and to the requirements of applicable law.

4. Liquidation. Upon the dissolution or liquidation of the Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive all assets of the Corporation available for distribution to its stockholders, subject to any preferential or other rights of any then outstanding Preferred Stock.

B. PREFERRED STOCK.

Preferred Stock may be issued from time to time in one or more series, each of such series to have such terms as stated or expressed herein and in the resolution or resolutions providing for the issue of such series adopted by the Board of Directors as hereinafter provided.

Authority is hereby expressly granted to the Board of Directors from time to time to issue the Preferred Stock in one or more series, and in connection with the creation of any such series, by adopting a resolution or resolutions providing for the issuance of the shares thereof and by filing a certificate of designations relating thereto in accordance with the General Corporation Law of the State of Delaware, to determine and fix the number of shares of such series and such voting powers, full or limited, or no voting powers, and such designations, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, including without limitation thereof, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be stated and expressed in such resolutions, all to the fullest extent now or hereafter permitted by the General Corporation Law of the State of Delaware. The powers, preferences and relative, participating, optional and other special rights of each such series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding. Without limiting the generality of the foregoing, the resolution or resolutions providing for the issuance of any series of Preferred Stock may provide that such series shall be superior or rank equally or be junior to any other series of Preferred Stock to the extent permitted by law.

Subject to the rights of the holders of any series of Preferred Stock pursuant to the terms of this Restated Certificate of Incorporation or any resolution or resolutions providing for the issuance of such series of stock adopted by the Board of Directors, the number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware.

FIFTH: Except as otherwise provided herein, the Corporation reserves the right to amend, alter, change or repeal any provision contained in this Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute and this Restated Certificate of Incorporation, and all rights conferred upon stockholders, directors or any other persons herein are granted subject to this reservation.

SIXTH: In furtherance and not in limitation of the powers conferred upon it by the General Corporation Law of the State of Delaware, and subject to the terms of any series of Preferred Stock, the Board of Directors shall have the power to adopt, amend, alter or repeal the Bylaws of the Corporation. The stockholders may not adopt, amend, alter or repeal the Bylaws of the Corporation, or adopt any provision inconsistent therewith, unless such action is approved, in addition to any other vote required by this Restated Certificate of Incorporation, by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon. Notwithstanding any other provisions of law, this Restated Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article SIXTH.

SEVENTH: Except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability. No amendment to or repeal of this provision shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal. If the General Corporation Law of the State of Delaware is amended to permit further elimination or limitation of the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware as so amended.

EIGHTH: This Article EIGHTH is inserted for the management of the business and for the conduct of the affairs of the Corporation.

1. General Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

2. Number of Directors; Election of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the Corporation shall be established from time to time by the Board of Directors. Election of directors need not be by written ballot, except as and to the extent provided in the Bylaws of the Corporation.

3. Classes of Directors. Subject to the rights of holders of any series of Preferred Stock to elect directors, the Board of Directors shall be and is divided into three classes, designated as Class I, Class II and Class III. Each class shall consist, as nearly as may be possible, of one-third of the total number of directors constituting the entire Board of Directors. The Board of Directors is authorized to assign members of the Board of Directors to Class I, Class II or Class III.

4. Terms of Office. Subject to the rights of holders of any series of Preferred Stock to elect directors, each director shall serve for a term ending on the date of the third annual meeting of stockholders following the annual meeting of stockholders at which such director was elected; provided that each director initially assigned to Class I shall serve for a term expiring at the Corporation's first annual meeting of stockholders held after the effectiveness of this Restated Certificate of Incorporation; each director initially assigned to Class II shall serve for a term expiring at the Corporation's second annual meeting of stockholders held after the effectiveness of this Restated Certificate of Incorporation; and each director initially assigned to Class III shall serve for a term expiring at the Corporation's third annual meeting of stockholders held after the effectiveness of this Restated Certificate of Incorporation; provided further, that the term of each director shall continue until the election and qualification of his or her successor and be subject to his or her earlier death, resignation or removal.

5. Quorum. The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors fixed pursuant to Section 2 of this Article EIGHTH shall constitute a quorum of the Board of Directors. If at any meeting of the Board of Directors there shall be less than such a quorum, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

6. Action at Meeting. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors unless a greater number is required by law or by this Restated Certificate of Incorporation.

7. Removal. Subject to the rights of holders of any series of Preferred Stock, directors of the Corporation may be removed but only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote at an election of directors.

8. Vacancies. Subject to the rights of holders of any series of Preferred Stock, any vacancy or newly created directorship in the Board of Directors, however occurring, shall be filled only by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by the stockholders, unless the Board of Directors determines by resolution that any such vacancy or newly created directorship shall be filled by the stockholders. A director elected to fill a vacancy shall hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of a successor and to such director's earlier death, resignation or removal.

9. Stockholder Nominations and Introduction of Business, Etc. Advance notice of stockholder nominations for election of directors and other business to be brought by stockholders before a meeting of stockholders shall be given in the manner provided by the Bylaws of the Corporation.

10. Amendments to Article. Notwithstanding any other provisions of law, this Restated Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article EIGHTH.

NINTH: No action that is required or permitted to be taken by the stockholders of the Corporation at any annual or special meeting of stockholders may be effected by written consent of stockholders in lieu of a meeting. Notwithstanding any other provisions of law, this Restated Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article NINTH.

TENTH: Special meetings of stockholders for any purpose or purposes may be called at any time only by the Board of Directors, the chairperson of the Board of Directors, the chief executive officer or the president (in the absence of a chief executive officer) of the Corporation, and may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to the purpose or purposes stated in the notice of meeting. Notwithstanding any other provisions of law, this Restated Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article TENTH.

ELEVENTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of fiduciary duty owed by any director, officer, employee or stockholder of the Corporation to the Corporation or

the Corporation's stockholders, (c) any action asserting a claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or as to which the General Corporation Law of the State of Delaware confers jurisdiction on the Court of Chancery of the State of Delaware or (d) any action asserting a claim governed by the internal affairs doctrine, in each case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein; provided that, the provisions of this sentence will not apply to suits brought to enforce any liability or duty created by the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, or any other claim for which the federal courts have exclusive jurisdiction; and provided further that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state or federal court sitting in the State of Delaware. Unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended. To the fullest extent permitted by applicable law, any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article ELEVENTH. Notwithstanding any other provisions of law, this Restated Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article ELEVENTH. If any provision or provisions of this Article ELEVENTH shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article ELEVENTH (including, without limitation, each portion of any sentence of this Article ELEVENTH containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation, which restates, integrates and amends the certificate of incorporation of the Corporation, and which has been duly adopted in accordance with Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware, has been executed by its duly authorized officer this___ day of ____, 2020.

LYRA THERAPEUTICS, INC.

By: _____

Name: Maria Palasis, Ph.D.
Title: President and Chief Executive Officer

Exhibit 3.4

AMENDED AND RESTATED

BYLAWS

OF

LYRA THERAPEUTICS, INC.

(a Delaware corporation)

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AMENDED AND RESTATED BYLAWS
OF
LYRA THERAPEUTICS, INC.

ARTICLE I - CORPORATE OFFICES

1.1 REGISTERED OFFICE.

The registered office of Lyra Therapeutics, Inc. (the "Corporation") shall be fixed in the Corporation's certificate of incorporation, as the same may be amended and/or restated from time to time (the "certificate of incorporation").

1.2 OTHER OFFICES.

The Corporation may have other offices at any place or places, either within or outside the State of Delaware, as the Corporation's board of directors (the "Board") shall from time to time determine or the business of the Corporation may from time to time require.

ARTICLE II - MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS.

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board. The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a) of the General Corporation Law of the State of Delaware (the "DGCL"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Corporation's principal executive office.

2.2 ANNUAL MEETING.

The Board shall designate the date and time of the annual meeting. At the annual meeting, directors shall be elected and other proper business properly brought before the meeting in accordance with Section 2.4 of these bylaws may be transacted.

2.3 SPECIAL MEETING.

A special meeting of the stockholders may be called at any time by the Board, chairperson of the Board, chief executive officer or president (in the absence of a chief executive officer) of the Corporation, but such special meetings may not be called by any other person or persons.

No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

2.4 ADVANCE NOTICE PROCEDURES FOR BUSINESS BROUGHT BEFORE A MEETING.

(a) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (i) brought before the meeting by the Corporation and specified in a notice of meeting given by or at the direction of the Board, (ii) brought before the meeting by or at the direction of the Board (or a committee thereof) or (iii) otherwise properly brought before the meeting by a stockholder who (A) was a stockholder of record of the Corporation (and, with respect to any beneficial owner, if different, on whose behalf such business is proposed, only if such beneficial owner was the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.4 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with this Section 2.4 as to such business. Except for proposals properly made in accordance with Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (as so amended and inclusive of such rules and regulations, the "Exchange Act"), and included in the notice of meeting given by or at the direction of the Board, the foregoing clause (iii) shall be the exclusive means for a stockholder to propose business to be brought before an annual meeting of the stockholders. Stockholders shall not be permitted to propose business to be brought before a special meeting of the stockholders, and the only matters that may be brought before a special meeting are the matters specified in the notice of meeting given by or at the direction of the person calling the meeting pursuant to Section 2.3 of these bylaws. Stockholders seeking to nominate persons for election to the Board must comply with Section 2.5 of these bylaws, and this Section 2.4 shall not be applicable to nominations except as expressly provided in Section 2.5 of these bylaws.

(b) Without qualification, for business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of the second sentence of Section 2.4(a) of these bylaws, the stockholder must (i) provide Timely Notice (as defined below) thereof in writing and in proper form to the secretary of the Corporation and (ii) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.4. To be timely, a stockholder's notice must be delivered to, or mailed and received by the Secretary at, the principal executive offices of the Corporation not less than ninety (90) days nor more than one hundred twenty (120) days prior to the first anniversary of the preceding year's annual meeting; *provided, however*, that, if the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after such anniversary date, notice by the stockholder to be timely must be so delivered, or mailed and received, not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the later of the

close of business on the ninetieth (90th) day prior to such annual meeting and the close of business on the tenth (10th) day following the day on which public disclosure of the date of such annual meeting was first made (such notice within such time periods, "Timely Notice"); *provided*, *further*, that for the purposes of calculating Timely Notice for the first annual meeting held after the Company's initial public offering of its shares pursuant to a registration statement on Form S-1, the date of the immediately preceding annual meeting shall be deemed to be June 5, 2019. In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period (or extend any time period) for the giving of Timely Notice as described above.

(c) To be in proper form for purposes of this Section 2.4, a stockholder's notice to the secretary of the Corporation shall set forth:

(i) As to each Proposing Person (as defined below), (A) the name and address of such Proposing Person (including, without limitation, if applicable, the name and address that appear on the Corporation's books and records) and (B) the class or series and number of shares of the Corporation that are, directly or indirectly, owned of record or beneficially owned (within the meaning of Rule 13d-3 under the Exchange Act) by such Proposing Person, except that such Proposing Person shall in all events be deemed to beneficially own any shares of any class or series of the Corporation as to which such Proposing Person has a right to acquire beneficial ownership at any time in the future (the disclosures to be made pursuant to the foregoing clauses (A) and (B) are referred to as "Stockholder Information");

(ii) As to each Proposing Person, (A) any derivative, swap or other transaction or series of transactions engaged in, directly or indirectly, by such Proposing Person, the purpose or effect of which is to give such Proposing Person economic risk similar to ownership of shares of any class or series of the Corporation, including, without limitation, due to the fact that the value of such derivative, swap or other transactions are determined by reference to the price, value or volatility of any shares of any class or series of the Corporation, or which derivative, swap or other transactions provide, directly or indirectly, the opportunity to profit from any increase in the price or value of shares of any class or series of the Corporation ("Synthetic Equity Interests"), which Synthetic Equity Interests shall be disclosed without regard to whether (x) the derivative, swap or other transactions convey any voting rights in such shares to such Proposing Person, (y) the derivative, swap or other transactions are required to be, or are capable of being, settled through delivery of such shares or (z) such Proposing Person may have entered into other transactions that hedge or mitigate the economic effect of such derivative, swap or other transactions, (B) any proxy (other than a revocable proxy or consent given in response to a solicitation made pursuant to, and in accordance with, Section 14(a) of the Exchange Act by way of

a solicitation statement filed on Schedule 14A), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to vote any shares of any class or series of the Corporation, (C) any agreement, arrangement, understanding or relationship, including, without limitation, any repurchase or similar so-called "stock borrowing" agreement or arrangement, engaged in, directly or indirectly, by such Proposing Person, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of shares of any class or series of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such Proposing Person with respect to the shares of any class or series of the Corporation, or which provides, directly or indirectly, the opportunity to profit from any decrease in the price or value of the shares of any class or series of the Corporation ("Short Interests"), (D) any rights to dividends on the shares of any class or series of the Corporation owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, (E) any performance related fees (other than an asset based fee) that such Proposing Person is entitled to based on any increase or decrease in the price or value of shares of any class or series of the Corporation, or any Synthetic Equity Interests or Short Interests, if any, (F)(x) if such Proposing Person is not a natural person, the identity of the natural person or persons associated with such Proposing Person responsible for the formulation of and decision to propose the business to be brought before the meeting (such person or persons, the "Responsible Person"), the manner in which such Responsible Person was selected, any fiduciary duties owed by such Responsible Person to the equity holders or other beneficiaries of such Proposing Person, the qualifications and background of such Responsible Person and any material interests or relationships of such Responsible Person that are not shared generally by any other record or beneficial holder of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing Person to propose such business to be brought before the meeting, and (y) if such Proposing Person is a natural person, the qualifications and background of such natural person and any material interests or relationships of such natural person that are not shared generally by any other record or beneficial holder of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing Person to propose such business to be brought before the meeting, (G) any significant equity interests or any Synthetic Equity Interests or Short Interests in any principal competitor of the Corporation held by such Proposing Persons, (H) any direct or indirect interest of such Proposing Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, without limitation, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), (I) any pending or threatened litigation in which such Proposing Person is a party or material participant involving the Corporation or any of its

officers or directors, or any affiliate of the Corporation, (J) any material transaction occurring during the prior twelve months between such Proposing Person, on the one hand, and the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation, on the other hand, (K) a summary of any material discussions regarding the business proposed to be brought before the meeting (x) between or among any of the Proposing Persons or (y) between or among any Proposing Person and any other record or beneficial holder of the shares of any class or series of the Corporation (including, without limitation, their names) and (L) any other information relating to such Proposing Person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies or consents by such Proposing Person in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act (the disclosures to be made pursuant to the foregoing clauses (A) through (L) are referred to as "Disclosable Interests"); *provided, however*, that Disclosable Interests shall not include any such disclosures with respect to the ordinary course business activities of any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner; and

(iii) As to each item of business that the stockholder proposes to bring before the annual meeting, (A) a reasonably brief description of the business desired to be brought before the annual meeting, the reasons for conducting such business at the annual meeting and any material interest in such business of each Proposing Person, (B) the text of the proposal or business (including, without limitation, the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws of the Corporation, the language of the proposed amendment), (C) a reasonably detailed description of all agreements, arrangements and understandings between or among any of the Proposing Persons or between or among any Proposing Person and any other person or entity (including, without limitation, their names) in connection with the proposal of such business by such stockholder, (D) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business, (E) a representation whether the Proposing Person intends or is part of a group which intends (1) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal and/or (2) otherwise to solicit proxies or votes from stockholders in support of such proposal and (F) any other information relating to such item of business that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies in support of the business proposed to be brought

before the meeting pursuant to Section 14(a) of the Exchange Act; *provided*, *however*, that the disclosures required by this paragraph (c) (iii) shall not include any disclosures with respect to any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner.

(d) For purposes of this Section 2.4, the term "Proposing Person" shall mean (i) the stockholder providing the notice of business proposed to be brought before an annual meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the business proposed to be brought before the annual meeting is made, (iii) any affiliate or associate (each within the meaning of Rule 12b-2 under the Exchange Act for the purposes of these bylaws) of such stockholder or beneficial owner and (iv) any other person with whom such stockholder or beneficial owner (or any of their respective affiliates or associates) is Acting in Concert (as defined below).

(e) A person shall be deemed to be "Acting in Concert" with another person for purposes of these bylaws if such person knowingly acts (whether or not pursuant to an express agreement, arrangement or understanding) in concert with, or towards a common goal relating to the management, governance or control of the Corporation in parallel with, such other person where (i) each person is conscious of the other person's conduct or intent and this awareness is an element in their decision-making processes and (ii) at least one additional factor suggests that such persons intend to act in concert or in parallel, which such additional factors may include, without limitation, exchanging information (whether publicly or privately), attending meetings, conducting discussions, or making or soliciting invitations to act in concert or in parallel; *provided*, that a person shall not be deemed to be Acting in Concert with any other person solely as a result of the solicitation or receipt of revocable proxies or consents from such other person in response to a solicitation made pursuant to, and in accordance with, Section 14(a) of the Exchange Act by way of a proxy or consent solicitation statement filed on Schedule 14A. A person Acting in Concert with another person shall be deemed to be Acting in Concert with any third party who is also Acting in Concert with such other person.

(f) A stockholder providing notice of business proposed to be brought before an annual meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.4 shall be true and correct as of the record date for determining stockholders entitled to notice of the annual meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the secretary of the Corporation at the principal executive offices of the Corporation not later than five (5) business days after the record date for determining stockholders entitled to notice of the annual meeting (in the case of the update and supplement required to be made as of the record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(g) Notwithstanding anything in these bylaws to the contrary and except as otherwise expressly provided in any applicable rule or regulation promulgated under the Exchange Act, no business shall be conducted at an annual meeting except in accordance with this Section 2.4. The presiding officer of an annual meeting of stockholders shall have the power and duty (a) to determine that any business was not properly brought before the meeting in accordance with this Section 2.4 (including whether the stockholder or beneficial owner, if any, on whose behalf the business proposed to be brought before the annual meeting is made, solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies or votes in support of such stockholder's business in compliance with such stockholder's representation as required by clause (c)(iii)(E) of this Section 2.4); and (b) if any proposed business was not proposed in compliance with this Section 2.4 to declare to the meeting that any such business not properly brought before the meeting shall not be transacted.

(h) The foregoing notice requirements of this Section 2.4 shall be deemed satisfied by a stockholder with respect to business other than a nomination if the stockholder has notified the Corporation of his, her or its intention to present a proposal at an annual meeting in compliance with applicable rules and regulations promulgated under the Exchange Act and such stockholder's proposal has been included in a proxy statement that has been prepared by the Corporation to solicit proxies for such annual meeting. Nothing in this Section 2.4 shall be deemed to affect the rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

(i) For purposes of these bylaws, "public disclosure" shall mean disclosure in a press release reported by a national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Sections 13, 14 or 15(d) of the Exchange Act.

(j) Notwithstanding the foregoing provisions of this Section 2.4, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting to present proposed business, such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2.4, except as provided under Rule 14a-8 under the Exchange Act, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the annual meeting and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the annual meeting.

(k) Notwithstanding the foregoing provisions of this Section 2.4, a stockholder shall also comply with all applicable requirements of the Exchange Act with respect to the matters set forth in this Section 2.4; provided however, that any references in these bylaws to the Exchange Act are not intended to and shall not limit any requirements applicable to proposals as to any business to be considered pursuant to this Section 2.4 (including paragraph (a)(iii) hereof), and compliance with paragraph (a)(iii) of this Section 2.4 shall be the exclusive means for a stockholder to submit business (other than, as provided in the first sentence of paragraph (h) of this Section 2.4, business brought properly under and in compliance with Rule 14a-8 of the Exchange Act, as may be amended from time to time).

2.5 ADVANCE NOTICE PROCEDURES FOR NOMINATIONS OF DIRECTORS.

(a) Nominations of any person for election to the Board at an annual meeting or at a special meeting (but, in the case of a special meeting, only if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting) may be made at such meeting only (i) by or at the direction of the Board or any committee thereof, or (ii) by a stockholder who (A) was a stockholder of record of the Corporation (and, with respect to any beneficial owner, if different, on whose behalf such nomination is proposed to be made, only if such beneficial owner was the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.5 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with this Section 2.5 as to such nomination. The foregoing clause (ii) shall be the exclusive means for a stockholder to make any nomination of a person or persons for election to the Board to be considered by the stockholders at an annual meeting or special meeting.

(b) Without qualification, for a stockholder to make any nomination of a person or persons for election to the Board at an annual meeting, the stockholder must (i) provide Timely Notice (as defined in Section 2.4(b) of these bylaws) thereof in writing and in proper form to the secretary of the Corporation and (ii) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. Notwithstanding anything in this paragraph to the contrary, in the event that the number of directors to be elected to the Board at an annual meeting is increased effective after the time period for which nominations would otherwise by due under this paragraph (b) and there is no public announcement by the Corporation naming the nominees for the additional directorships at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by paragraph (b) of this Section 2.5 shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation. Without qualification, if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting, then for a

stockholder to make any nomination of a person or persons for election to such position(s) as specified in the notice of the special meeting, the stockholder must (i) provide timely notice thereof in writing and in proper form to the secretary of the Corporation at the principal executive offices of the Corporation and (ii) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. To be timely, a stockholder's notice for nominations to be made at a special meeting must be delivered to, or mailed and received at, the principal executive offices of the Corporation not earlier than the close of business on the one hundred twentieth (120th) day prior to such special meeting and not later than the later of the close of business on the ninetieth (90th) day prior to such special meeting and the close of business on the tenth (10th) day following the day on which public disclosure (as defined in Section 2.4(i) of these bylaws) of the date of such special meeting was first made. In no event shall any adjournment or postponement of an annual meeting or special meeting or the announcement thereof commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(c) To be in proper form for purposes of this Section 2.5, a stockholder's notice to the secretary of the Corporation shall set forth:

(i) As to each Nominating Person (as defined below), the Stockholder Information (as defined in Section 2.4(c)(i) of these bylaws) except that for purposes of this Section 2.5, the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(c)(i);

(ii) As to each Nominating Person, any Disclosable Interests (as defined in Section 2.4(c)(ii), except that for purposes of this Section 2.5 the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(c)(ii) and the disclosure in clause (L) of Section 2.4(c)(ii) shall be made with respect to the election of directors at the meeting) *provided*, *however*, that Disclosable Interests shall not include any such disclosures with respect to the ordinary course business activities of any broker, dealer, commercial bank, trust company or other nominee who is a Nominating Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner; and

(iii) As to each person whom a Nominating Person proposes to nominate for election as a director, (A) all information with respect to such proposed nominee that would be required to be set forth in a stockholder's notice pursuant to this Section 2.5 if such proposed nominee were a Nominating Person, (B) all information relating to such proposed nominee that is required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14(a) under the Exchange Act (including, without limitation, such proposed nominee's written consent to being named in the proxy statement as a

nominee and to serving as a director if elected), (C) a statement whether the proposed nominee, if elected, intends to tender, promptly following such person's failure to receive the required vote for election as a director at any subsequent meeting at which such person is nominated for re-election, a resignation that will become effective upon the acceptance of such resignation by the Board of Directors, (D) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three (3) years, and any other material relationships, between or among any Nominating Person, on the one hand, and each proposed nominee, his or her respective affiliates and associates and any other persons with whom such proposed nominee (or any of his or her respective affiliates and associates) is Acting in Concert (as defined in Section 2.4(e) of these bylaws), on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 under Regulation S-K if such Nominating Person were the "registrant" for purposes of such rule and the proposed nominee were a director or executive officer of such registrant (the disclosures to be made pursuant to the foregoing clauses (A) through (C) are referred to as "Nominee Information"), (E) a representation that the Nominating Person is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such nomination, (F) a representation whether the Nominating Person intends or is part of a group which intends (1) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to elect the nominee and/or (2) otherwise to solicit proxies or votes from stockholders in support of such nomination and (G) a completed and signed questionnaire, representation and agreement as provided in Section 2.5(g); and

(iv) The Corporation may require any proposed nominee to furnish such other information (A) as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation in accordance with the Corporation's Corporate Governance Guidelines or (B) that could be material to a reasonable stockholder's understanding of the independence or lack of independence of such proposed nominee.

(d) For purposes of this Section 2.5, the term "Nominating Person" shall mean (i) the stockholder providing the notice of the nomination proposed to be made at the meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the nomination proposed to be made at the meeting is made, (iii) any affiliate or associate of such stockholder or beneficial owner and (iv) any other person with whom such stockholder or such beneficial owner (or any of their respective affiliates or associates) is Acting in Concert.

(e) A stockholder providing notice of any nomination proposed to be made at a meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.5 shall be true and correct as of the record date for determining stockholders entitled to notice of the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the secretary of the Corporation at the principal executive offices of the Corporation not later than five (5) business days after the record date for determining stockholders entitled to notice of the meeting (in the case of the update and supplement required to be made as of the record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(f) Notwithstanding anything in these bylaws to the contrary, no person shall be eligible for election as a director of the Corporation unless nominated in accordance with this Section 2.5, except as otherwise expressly provided in any applicable rule or regulation promulgated under the Exchange Act. The presiding officer at any meeting of stockholders shall have the power and duty to (a) determine that a nomination was not properly made in accordance with this Section 2.5 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination was made, solicited or is part of a group which solicited) or did not so solicit, as the case may be, proxies or votes in support of such stockholder's nomination in compliance with such stockholder's representation as required by clause (c)(iii)(E) of this Section 2.5); and (b) if any proposed nomination was not made in compliance with this Section 2.5 to declare such determination to the meeting that the defective nomination shall be disregarded.

(g) To be eligible to be a nominee for election as a director of the Corporation, the proposed nominee must deliver (in accordance with the time periods prescribed for delivery of notice under this Section 2.5) to the secretary of the Corporation at the principal executive offices of the Corporation a written questionnaire with respect to the background and qualification of such proposed nominee (which questionnaire shall be provided by the secretary upon written request) and a written representation and agreement (in form provided by the secretary upon written request) that such proposed nominee (i) is not and will not become a party to (A) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such proposed nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (B) any Voting Commitment that could limit or interfere with such proposed nominee's ability to comply, if elected as a director of the Corporation, with such proposed nominee's fiduciary duties under applicable law, (ii) is not, and will not become a party to, any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or

indemnification in connection with candidacy, service or action as a director that has not been disclosed to the Corporation and (iii) in such proposed nominee's individual capacity and on behalf of the stockholder (and the beneficial owner, if different, on whose behalf the nomination is made) would be in compliance, if elected as a director of the Corporation, and will comply with applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation.

(h) In addition to the requirements of this Section 2.5 with respect to any nomination proposed to be made at a meeting, each Nominating Person shall comply with all applicable requirements of the Exchange Act with respect to any such nominations.

(i) Notwithstanding the foregoing provisions of this Section 2.5, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the meeting to present the proposed nomination, such proposed nomination shall not be considered, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2.5, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting.

2.6 NOTICE OF STOCKHOLDERS' MEETINGS.

Unless otherwise provided by law, the certificate of incorporation or these bylaws, the notice of any meeting of stockholders shall be given in accordance with either Section 2.7 or Section 8.1 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting. The notice shall specify the place, if any, date and hour of the meeting, the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting), the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.7 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE.

Notice of any meeting of stockholders shall be deemed given:

(a) if mailed, when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the Corporation's records; or

(b) if electronically transmitted, as provided in Section 8.1 of these bylaws.

An affidavit of the secretary or an assistant secretary of the Corporation or of the transfer agent or any other agent of the Corporation that the notice has been given by mail or by a form of electronic transmission, as applicable, shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.8 QUORUM.

Unless otherwise provided by law, the certificate of incorporation or these bylaws, the holders of a majority in voting power of the capital stock issued and outstanding and entitled to vote, present in person, or by remote communication, if applicable, or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. A quorum, once established at a meeting, shall not be broken by the withdrawal of enough votes to leave less than a quorum. If, however, a quorum is not present or represented at any meeting of the stockholders, then either (a) the chairperson of the meeting or (b) a majority in voting power of the stockholders entitled to vote thereon, present in person, or by remote communication, if applicable, or represented by proxy, shall have power to adjourn the meeting from time to time in the manner provided in Section 2.9 of these bylaws until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.9 ADJOURNED MEETING; NOTICE.

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date for determining the stockholders entitled to vote is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the adjourned meeting as of the record date for determining the stockholders entitled to notice of the adjourned meeting.

2.10 CONDUCT OF BUSINESS.

The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting by the person presiding over the meeting. The Board may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board, the person presiding over any meeting of stockholders shall have the right and authority to convene and (for any or no reason) to recess and/or adjourn the meeting, to prescribe such rules, regulations and procedures (which need not be in writing) and to do all such acts as, in the judgment of such presiding person, are appropriate

for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board or prescribed by the presiding person of the meeting, may include, without limitation, the following: (a) the establishment of an agenda or order of business for the meeting; (b) rules and procedures for maintaining order at the meeting and the safety of those present (including, without limitation, rules and procedures for removal of disruptive persons from the meeting); (c) limitations on attendance at or participation in the meeting to stockholders entitled to vote at the meeting, their duly authorized and constituted proxies or such other persons as the presiding person of the meeting shall determine; (d) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (e) limitations on the time allotted to questions or comments by participants. The presiding person at any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting (including, without limitation, determinations with respect to the administration and/or interpretation of any of the rules, regulations or procedures of the meeting, whether adopted by the Board or prescribed by the person presiding over the meeting), shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and if such presiding person should so determine, such presiding person shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board or the person presiding over the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

2.11 VOTING.

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.13 of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation or these bylaws, each stockholder shall be entitled to one (1) vote for each share of capital stock held by such stockholder.

At all duly called or convened meetings of stockholders, at which a quorum is present, for the election of directors, a plurality of the votes cast shall be sufficient to elect a director. All other elections and questions presented to the stockholders at a duly called or convened meeting, at which a quorum is present, shall, unless a different or minimum vote is required by the certificate of incorporation, these bylaws, the rules or regulations of any stock exchange applicable to the Corporation, or any law or regulation applicable to the Corporation or its securities, in which case such different or minimum vote shall be the applicable vote on the matter, be decided by the affirmative vote of the holders of a majority in voting power of the votes cast affirmatively or negatively (excluding abstentions) at the meeting by the holders entitled to vote thereon.

2.12 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

2.13 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING.

In order that the Corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the Board 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, and which record date shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If the Board so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders 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. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance herewith at the adjourned meeting.

In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights, or 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 may fix a record date, which shall not be more than sixty (60) days prior to such other action. If no such 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 adopts the resolution relating thereto.

2.14 PROXIES.

Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL. A proxy may be in the form of a telegram, cablegram or other means of electronic transmission which sets forth or is submitted with information from which it can be determined that the telegram, cablegram or other means of electronic transmission was authorized by the stockholder.

2.15 LIST OF STOCKHOLDERS ENTITLED TO VOTE.

The Corporation shall prepare, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting (*provided, however*, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the tenth day before the date of 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. The Corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the Corporation's principal executive office. In the event that the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. If the meeting is to be held at a place, then the list shall 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. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Except as otherwise provided by law, the stock ledger shall be the only evidence as to the identity of the stockholders entitled to vote in person or by proxy and the number of shares held by each of them, and as to the stockholders entitled to examine the list of stockholders.

2.16 POSTPONEMENT, ADJOURNMENT AND CANCELLATION OF MEETING.

Any previously scheduled annual or special meeting of the stockholders may be postponed or adjourned, and any previously scheduled annual or special meeting of the stockholders may be canceled, by resolution of the Board.

2.17 INSPECTORS OF ELECTION.

Before any meeting of stockholders, the Board shall appoint an inspector or inspectors of election to act at the meeting or its adjournment or postponement and make a written report thereof. The number of inspectors shall be either one (1) or three (3). If any person appointed as inspector fails to appear or fails or refuses to act, then the chairperson of the meeting may, and upon the request of any stockholder or a stockholder's proxy shall, appoint a person to fill that

vacancy. Unless otherwise required by law, inspectors may be officers, employees or agents of the Corporation. Such inspectors shall have the duties prescribed by law. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath to execute faithfully the duties of inspector with strict impartiality and according to the best of his or her ability. If there are three (3) inspectors of election, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all. Any report or certificate made by the inspectors of election is prima facie evidence of the facts stated therein.

ARTICLE III - DIRECTORS

3.1 POWERS.

Subject to the provisions of the DGCL and any limitations in the certificate of incorporation, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board.

3.2 NUMBER OF DIRECTORS.

The authorized number of directors shall be determined from time to time by resolution of the Board, provided the Board shall consist of at least one (1) member. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.

Except as provided in Section 3.4 of these bylaws, each director, including, without limitation, a director elected to fill a vacancy, shall hold office until the expiration of the term for which elected and until such director's successor is elected and qualified or until such director's earlier death, resignation or removal. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The Corporation may also have, at the discretion of the Board, a chairperson of the Board and a vice chairperson of the Board. The certificate of incorporation or these bylaws may prescribe other qualifications for directors.

3.4 RESIGNATION AND VACANCIES.

Any director may resign at any time upon notice given in writing or by electronic transmission to the chairperson of the Board or the Corporation's chief executive officer, president or secretary. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the certificate of incorporation or these bylaws, vacancies and newly created directorships resulting from any increase in the authorized number of directors shall, unless the Board determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board shall be deemed to exist under these bylaws in the case of the death, removal or resignation of any director.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE.

The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting pursuant to this bylaw shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS.

Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board; *provided* that any director who is absent when such determination is made shall be given notice of the determination. A regular meeting of the Board may be held without notice immediately after and at the same place as the annual meeting of stockholders.

3.7 SPECIAL MEETINGS; NOTICE.

Special meetings of the Board for any purpose or purposes may be called at any time by the chairperson of the Board, the chief executive officer, the president, the secretary or a majority of the authorized number of directors.

Notice of the time and place of special meetings shall be:

(a) delivered personally by hand, by courier or by telephone;

(b) sent by United States first-class mail, postage prepaid;

(c) sent by facsimile; or

(d) sent by electronic mail, electronic transmission or other similar means,

directed to each director at that director's address, telephone number, facsimile number or electronic mail or other electronic address, as the case may be, as shown on the Corporation's records.

If the notice is (a) delivered personally by hand, by courier or by telephone, (b) sent by facsimile or (c) sent by electronic mail or electronic transmission, it shall be delivered or sent at least twenty-four (24) hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Corporation's principal executive office) nor the purpose of the meeting.

3.8 QUORUM.

The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors established by the Board pursuant to Section 3.2 of these bylaws shall constitute a quorum of the Board for the transaction of business. The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

3.9 BOARD ACTION BY CONSENT WITHOUT A MEETING.

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, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.10 FEES AND COMPENSATION OF DIRECTORS.

Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

3.11 REMOVAL OF DIRECTORS.

Subject to the rights of the holders of the shares of any series of preferred stock of the Corporation, the Board or any individual director may be removed from office only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon.

ARTICLE IV - COMMITTEES

4.1 COMMITTEES OF DIRECTORS.

The Board may designate one (1) or more committees, each committee to consist of one (1) or more of the directors of the Corporation. The Board may designate one (1) or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board 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 that may require it; but no such committee shall have the power or authority to (a) approve or adopt, or recommend to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (b) adopt, amend or repeal any bylaw of the Corporation.

4.2 COMMITTEE MINUTES.

Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

4.3 MEETINGS AND ACTION OF COMMITTEES.

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(a) Section 3.5 of these bylaws (place of meetings and meetings by telephone);

(b) Section 3.6 of these bylaws (regular meetings);

(c) Section 3.7 of these bylaws (special meetings and notice);

(d) Section 3.8 of these bylaws (quorum);

(e) Section 7.12 of these bylaws (waiver of notice); and

(f) Section 3.9 of these bylaws (action without a meeting),

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the governance of any committee not inconsistent with the provisions (or any part thereof) of these bylaws.

ARTICLE V - OFFICERS

5.1 OFFICERS.

The officers of the Corporation shall be a president and a secretary. The Corporation may also have, at the discretion of the Board, a chief executive officer, a chief financial officer or treasurer, one (1) or more vice presidents, one (1) or more assistant vice presidents, one (1) or more assistant treasurers, one (1) or more assistant secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS.

The Board shall appoint the officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws, subject to the rights, if any, of an officer under any contract of employment.

5.3 SUBORDINATE OFFICERS.

The Board may appoint, or empower the chief executive officer or, in the absence of a chief executive officer, the president, to appoint, such other officers and agents as the business of the Corporation may require. Each of such officers shall hold office for such period, as is provided in these bylaws or as the Board may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS.

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES.

Any vacancy occurring in any office of the Corporation shall be filled by the Board or as provided in Section 5.3 of these bylaws.

5.6 REPRESENTATION OF SHARES OF OTHER ENTITIES.

The chairperson of the Board, the president, any vice president, the treasurer, the secretary or assistant secretary of this Corporation, or any other person authorized by the Board or the president or a vice president, is authorized to vote, represent and exercise on behalf of this Corporation all rights incident to any and all securities of any other entity or entities standing in the name of this Corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.7 AUTHORITY AND DUTIES OF OFFICERS.

All officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the Board and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE VI - RECORDS AND REPORTS

6.1 MAINTENANCE OF RECORDS.

Subject to applicable law, the Corporation shall, either at its principal executive office or at such place or places as designated by the Board, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books and other records.

ARTICLE VII - GENERAL MATTERS

7.1 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.

The Board, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

7.2 STOCK CERTIFICATES; PARTLY PAID SHARES.

The shares of the Corporation shall be represented by certificates provided that the Board may provide by resolution or resolutions that some or all of any or all classes or series of stock shall be uncertificated shares. Certificates for the shares of stock, if any, shall be in such form as is consistent with the certificate of incorporation and applicable law. Every holder of stock represented by a certificate shall be entitled to have a certificate signed by, or in the name of the Corporation by any two authorized officers of the Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, or upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

7.3 MULTIPLES CLASSES OR SERIES OF STOCK.

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; *provided*, *however*, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements, there may be set forth on the

face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated stock, the Corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to the DGCL or a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

7.4 LOST CERTIFICATES.

Except as provided in this Section 7.4, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation in accordance with applicable law. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

7.5 CONSTRUCTION; DEFINITIONS.

Unless the context requires otherwise, the general provisions, rules of construction and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

7.6 DIVIDENDS.

The Board, subject to any restrictions contained in either (a) the DGCL or (b) the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property or in shares of the Corporation's capital stock.

The Board may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

7.7 FISCAL YEAR.

The fiscal year of the Corporation shall be fixed by resolution of the Board and may be changed by the Board.

7.8 SEAL.

The Corporation may adopt a corporate seal, which shall be adopted and which may be altered by the Board. The Corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

7.9 TRANSFER OF STOCK.

Shares of the Corporation shall be transferable in the manner prescribed by law and in these bylaws. Shares of stock of the Corporation shall be transferred on the books of the Corporation only by the holder of record thereof or by such holder's attorney duly authorized in writing, upon surrender to the Corporation of the certificate or certificates representing such shares endorsed by the appropriate person or persons (or by delivery of duly executed instructions with respect to uncertificated shares), with such evidence of the authenticity of such endorsement or execution, transfer, authorization and other matters as the Corporation may reasonably require, and accompanied by all necessary stock transfer stamps. To the fullest extent permitted by law, no transfer of stock shall be valid as against the Corporation for any purpose until it shall have been entered in the stock records of the Corporation by an entry showing the names of the persons from and to whom it was transferred.

7.10 STOCK TRANSFER AGREEMENTS.

The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

7.11 REGISTERED STOCKHOLDERS.

The Corporation, to the fullest extent permitted by law,:

(a) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(b) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(c) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

7.12 WAIVER OF NOTICE.

Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII - NOTICE BY ELECTRONIC TRANSMISSION

8.1 NOTICE BY ELECTRONIC TRANSMISSION.

Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the Corporation under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if:

(a) the Corporation is unable to deliver by electronic transmission two (2) consecutive notices given by the Corporation in accordance with such consent; and

(b) such inability becomes known to the secretary or an assistant secretary of the Corporation or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(a) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(b) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(c) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (i) such posting and (ii) the giving of such separate notice; and

(d) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the secretary or an assistant secretary of the Corporation or of the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

8.2 DEFINITION OF ELECTRONIC TRANSMISSION.

For the purposes of these bylaws, an "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

ARTICLE IX - INDEMNIFICATION AND ADVANCEMENT

9.1 ACTIONS, SUITS AND PROCEEDINGS OTHER THAN BY OR IN THE RIGHT OF THE CORPORATION.

The Corporation shall 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, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he or she is or was, or has agreed to become, a director or officer of the Corporation, or, while a director or officer of the Corporation, is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including, without limitation, any employee benefit plan) (all such persons being referred to hereafter as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including, without limitation, attorneys' fees), liabilities, losses, judgments, fines (including, without limitation, excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974), and amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit

or proceeding and any appeal therefrom, if Indemnitee acted in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

9.2 ACTIONS OR SUITS BY OR IN THE RIGHT OF THE CORPORATION.

The Corporation shall indemnify any Indemnitee who was or is a party to or threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that Indemnitee is or was, or has agreed to become, a director or officer of the Corporation, or, while a director or officer of the Corporation, is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including, without limitation, any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including, without limitation, attorneys' fees) actually and reasonably incurred by or on behalf of Indemnitee in connection with such action, suit or proceeding and any appeal therefrom, if Indemnitee acted in good faith and in a manner which Indemnitee reasonably believed to be in, or not opposed to, the best interests of the Corporation, except that no indemnification shall be made under this Section 9.2 in respect of any claim, issue or matter as to which Indemnitee shall have been adjudged to be liable to the Corporation, unless, and only to the extent, that the Court of Chancery of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of such liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses (including, without limitation, attorneys' fees) which the Court of Chancery of Delaware or such other court shall deem proper.

9.3 INDEMNIFICATION FOR EXPENSES OF SUCCESSFUL PARTY.

Notwithstanding any other provisions of this Article IX, to the extent that an Indemnitee has been successful, on the merits or otherwise, in defense of any action, suit or proceeding referred to in Sections 9.1 and 9.2 of these bylaws, or in defense of any claim, issue or matter therein, or on appeal from any such action, suit or proceeding, Indemnitee shall be indemnified to the fullest extent permitted by law against all expenses (including, without limitation, attorneys' fees) actually and reasonably incurred by or on behalf of Indemnitee in connection therewith.

9.4 NOTIFICATION AND DEFENSE OF CLAIM.

As a condition precedent to an Indemnitee's right to be indemnified, such Indemnitee must notify the Corporation in writing as soon as practicable of any action, suit, proceeding or investigation involving such Indemnitee for which indemnity will or could be sought. With respect to any action, suit, proceeding or investigation of which the Corporation is so notified, the Corporation will be entitled to participate therein at its own expense and/or to assume the defense thereof at its own expense, with legal counsel reasonably acceptable to Indemnitee. After notice from the Corporation to Indemnitee of its election so to assume such defense, the Corporation shall not be liable to Indemnitee for any legal or other expenses subsequently incurred by Indemnitee in connection with such action, suit, proceeding or investigation, other than as provided below in this Section 9.4. Indemnitee shall have the right to employ his or her own counsel in connection with such action, suit, proceeding or investigation, but the fees and expenses of such counsel incurred after notice from the Corporation of its assumption of the defense thereof shall be at the expense of Indemnitee unless (a) the employment of counsel by Indemnitee has been authorized by the Corporation, (b) counsel to Indemnitee shall have reasonably concluded that there may be a conflict of interest or position on any significant issue between the Corporation and Indemnitee in the conduct of the defense of such action, suit, proceeding or investigation or (c) the Corporation shall not in fact have employed counsel to assume the defense of such action, suit, proceeding or investigation, in each of which cases the fees and expenses of counsel for Indemnitee shall be at the expense of the Corporation, except as otherwise expressly provided by this Article IX. The Corporation shall not be entitled, without the consent of Indemnitee, to assume the defense of any claim brought by or in the right of the Corporation or as to which counsel for Indemnitee shall have reasonably made the conclusion provided for in clause (b) above. The Corporation shall not be required to indemnify Indemnitee under this Article IX for any amounts paid in settlement of any action, suit, proceeding or investigation effected without its written consent. The Corporation shall not settle any action, suit, proceeding or investigation in any manner which would impose any penalty or limitation on Indemnitee without Indemnitee's written consent. Neither the Corporation nor Indemnitee will unreasonably withhold or delay its consent to any proposed settlement.

9.5 ADVANCE OF EXPENSES.

Subject to the provisions of Sections 9.4 and 9.6 of these bylaws, in the event of any threatened or pending action, suit, proceeding or investigation of which the Corporation receives notice under this Article IX, any expenses (including, without limitation, attorneys' fees) incurred by or on behalf of Indemnitee in defending an action, suit, proceeding or investigation or any appeal therefrom shall be paid by the Corporation in advance of the final disposition of such matter to the fullest extent permitted by law; *provided, however*, that, to the extent required by law, the payment of such expenses incurred by or on behalf of Indemnitee in advance of the final disposition of such matter shall be made only upon receipt of an undertaking by or on behalf of Indemnitee to repay all amounts so advanced in the event that it shall ultimately be determined by final judicial decision from which there is no further right to appeal that Indemnitee is not entitled to be indemnified by the Corporation as authorized in this Article IX or otherwise; and *provided further* that no such advancement of expenses shall be made under this Article IX if it is determined (in the manner described in Section 9.6 of these bylaws) that (a) Indemnitee did not act 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, or (b) with respect to any criminal action or proceeding, Indemnitee had reasonable cause to believe his or her conduct was unlawful. Such undertaking shall be accepted without reference to the financial ability of Indemnitee to make such repayment.

9.6 PROCEDURE FOR INDEMNIFICATION AND ADVANCEMENT OF EXPENSES.

In order to obtain indemnification or advancement of expenses pursuant to Section 9.1, 9.2, 9.3 or 9.5 of these bylaws, an Indemnitee shall submit to the Corporation a written request. Any such advancement of expenses shall be made promptly, and in any event within 60 days after receipt by the Corporation of the written request of Indemnitee, unless (a) the Corporation has assumed the defense pursuant to Section 9.4 of these bylaws (and none of the circumstances described in Section 9.4 of these bylaws that would nonetheless entitle the Indemnitee to indemnification for the fees and expenses of separate counsel have occurred) or (b) the Corporation determines within such 60-day period that Indemnitee did not meet the applicable standard of conduct set forth in Section 9.1, 9.2 or 9.5 of these bylaws, as the case may be. Any such indemnification, unless ordered by a court, shall be made with respect to requests under Section 9.1 or 9.2 of these bylaws only as authorized in the specific case upon a determination by the Corporation that the indemnification of Indemnitee is proper because Indemnitee has met the applicable standard of conduct set forth in Section 9.1 or 9.2 of these bylaws, as the case may be. Such determination shall be made in each instance (a) by a majority vote of the directors of the Corporation consisting of persons who are not at that time parties to the action, suit or proceeding in question ("disinterested directors"), whether or not a quorum, (b) by a committee of disinterested directors designated by majority vote of disinterested directors, whether or not a quorum, (c) if there are no disinterested directors, or if the disinterested directors so direct, by independent legal counsel (who may, to the extent permitted by law, be regular legal counsel to the Corporation) in a written opinion or (d) by the stockholders of the Corporation.

9.7 REMEDIES.

To the fullest extent permitted by law, the right to indemnification or advancement of expenses as granted by this Article IX shall be enforceable by Indemnitee in any court of competent jurisdiction. Neither the failure of the Corporation to have made a determination prior to the commencement of such action that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Corporation pursuant to Section 9.6 of these bylaws that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct. In any suit brought by Indemnitee to enforce a right to indemnification or advancement, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall have the burden of proving that Indemnitee is not entitled to be indemnified, or to such advancement of expenses,

under this Article IX. Indemnitee's expenses (including, without limitation, attorneys' fees) reasonably incurred in connection with successfully establishing Indemnitee's right to indemnification or advancement, in whole or in part, in any such proceeding shall also be indemnified by the Corporation to the fullest extent permitted by law. Notwithstanding the foregoing, in any suit brought by Indemnitee to enforce a right to indemnification hereunder it shall be a defense that the Indemnitee has not met any applicable standard for indemnification set forth in the DGCL.

9.8 LIMITATIONS.

Notwithstanding anything to the contrary in this Article IX, except as set forth in Section 9.7 of these bylaws, the Corporation shall not indemnify an Indemnitee pursuant to this Article IX in connection with a proceeding (or part thereof) initiated by such Indemnitee unless the initiation thereof was approved by the Board. Notwithstanding anything to the contrary in this Article IX, the Corporation shall not indemnify (or advance expenses to) an Indemnitee to the extent such Indemnitee is reimbursed (or advanced expenses) from the proceeds of insurance, and in the event the Corporation makes any indemnification (or advancement) payments to an Indemnitee and such Indemnitee is subsequently reimbursed from the proceeds of insurance, such Indemnitee shall promptly refund indemnification (or advancement) payments to the Corporation to the extent of such insurance reimbursement.

9.9 SUBSEQUENT AMENDMENT.

No amendment, termination or repeal of this Article IX or of the relevant provisions of the DGCL or any other applicable laws shall adversely affect or diminish in any way the rights of any Indemnitee to indemnification or advancement of expenses under the provisions hereof with respect to any action, suit, proceeding or investigation arising out of or relating to any actions, transactions or facts occurring prior to the final adoption of such amendment, termination or repeal.

9.10 OTHER RIGHTS.

The indemnification and advancement of expenses provided by this Article IX shall not be deemed exclusive of any other rights to which an Indemnitee seeking indemnification or advancement of expenses may be entitled under any law (common or statutory), agreement or vote of stockholders or disinterested directors or otherwise, both as to action in Indemnitee's official capacity and as to action in any other capacity while holding office for the Corporation, and shall continue as to an Indemnitee who has ceased to be a director or officer, and shall inure to the benefit of the estate, heirs, executors and administrators of Indemnitee. Nothing contained in this Article IX shall be deemed to prohibit, and the Corporation is specifically authorized to enter into, agreements with officers and directors providing indemnification and advancement rights and procedures different from those set forth in this Article IX. In addition, the Corporation may, to the extent authorized from time to time by the Board, grant indemnification and advancement rights to other employees or agents of the Corporation or other persons serving the Corporation and such rights may be equivalent to, or greater or less than, those set forth in this Article IX.

9.11 PARTIAL INDEMNIFICATION.

If an Indemnitee is entitled under any provision of this Article IX to indemnification by the Corporation for some or a portion of the expenses (including, without limitation, attorneys' fees), liabilities, losses, judgments, fines (including, without limitation, excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974, as amended) or amounts paid in settlement actually and reasonably incurred by or on behalf of Indemnitee in connection with any action, suit, proceeding or investigation and any appeal therefrom but not, however, for the total amount thereof, the Corporation shall nevertheless indemnify Indemnitee for the portion of such expenses (including, without limitation, attorneys' fees), liabilities, losses, judgments, fines (including, without limitation, excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974, as amended) or amounts paid in settlement to which Indemnitee is entitled.

9.12 INSURANCE.

The Corporation may purchase and maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise (including, without limitation, any employee benefit plan) against any expense, liability or loss 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 such person against such expense, liability or loss under the DGCL.

9.13 SAVINGS CLAUSE.

If this Article IX or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each Indemnitee as to any expenses (including, without limitation, attorneys' fees), liabilities, losses, judgments, fines (including, without limitation, excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974, as amended) and amounts paid in settlement in connection with any action, suit, proceeding or investigation, whether civil, criminal or administrative, including, without limitation, an action by or in the right of the Corporation, to the fullest extent permitted by any applicable portion of this Article IX that shall not have been invalidated and to the fullest extent permitted by applicable law.

9.14 DEFINITIONS.

Terms used in this Article IX and defined in Section 145(h) and Section 145(i) of the DGCL shall have the respective meanings assigned to such terms in such Section 145(h) and Section 145(i).

ARTICLE X - AMENDMENTS.

Subject to the limitations set forth in Section 9.9 of these bylaws or the provisions of the certificate of incorporation, the Board is expressly empowered to adopt, amend or repeal the bylaws of the Corporation. The stockholders also shall have power to adopt, amend or repeal the bylaws of the Corporation; ***provided***, ***however***, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by the certificate of incorporation, such action by stockholders shall require the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon.

Exhibit 4.2


LTI
LYRA THERAPEUTICS, INC.
COMMON STOCK
INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE
CUSIP 55234L 10 5
SEE REVERSE FOR CERTAIN DEFINITIONS
THIS CERTIFIES THAT
SPECIMEN
is the owner of
FULLY PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK OF THE PAR VALUE OF $0.001 PER SHARE OF
LYRA THERAPEUTICS, INC.
transferable on the books of the Corporation by the holder hereof in person or by duly authorized Attorney, upon surrender of this Certificate properly endorsed.
This Certificate is not valid until countersigned and registered by the Transfer Agent and Registrar.
WITNESS the facsimile signatures of the Corporation's duly authorized officers.
Dated:
SPECIMEN COPY OF STOCK
PRESIDENT
SECRETARY
BY:
AUTHORIZED SIGNATURE
COUNTERSIGNED AND REGISTERED:
AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC
(BROOKLYN, NY)
TRANSFER AGENT AND REGISTRAR

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
TEN ENT	— as tenants by the entireties
JT TEN	— as joint tenants with right of survivorship and not as tenants in commom

UNIF GIFT MIN ACT — _____ (Cust) Custodian _____ (Minor)
under Uniform Gifts to Minors Act _____ (State)

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, _____ hereby sell, assign and transfer unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING 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 Corporation, with full power of substitution in the premises.

Dated _____

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:

_____

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.

Exhibit 4.3

Schedule of Holders of
Warrants to Purchase Common Stock

Holder	Warrant No.	Number of Shares	Issuance Date	Expiration Date / Void After
ArrowMark Fundamental Opportunity Fund, L.P.	1-A	11,208	1/10/2020	1/10/2030
Meridian Small Cap Growth Fund	1-B	22,416	1/10/2020	1/10/2030
Intersouth Partners VII, L.P.	2	8,966	1/10/2020	1/10/2030
North Bridge Venture Partners V-A, L.P.	3-A	21,060	1/17/2020	1/17/2030
North Bridge Venture Partners V-B, L.P.	3-B	10,322	1/17/2020	1/17/2030
North Bridge Venture Partners VI, L.P	3-C	13,449	1/17/2020	1/17/2030
Polaris Venture Partners V, L.P.	4-A	17,304	1/10/2020	1/10/2030
Polaris Venture Partners Entrepreneurs' Fund V, L.P.	4-B	337	1/10/2020	1/10/2030
Polaris Venture Partners Founders' Fund V, L.P.	4-C	118	1/10/2020	1/10/2030
Polaris Venture Partners Special Founders' Fund V, L.P.	4-D	173	1/10/2020	1/10/2030
Perceptive Life Sciences Master Fund, Ltd	5-A	141,221	1/17/2020	1/17/2030
Perceptive LS (A), LLC	5-B	339,604	1/17/2020	1/17/2030
RA Capital Healthcare Fund, L.P.	6	11,208	1/17/2020	1/17/2030
Soleus Private Equity Fund I, L.P.	7	31,382	1/27/2020	1/27/2030
Emmant, LLC	8	2,052	1/31/2020	1/31/2030
Clifton Capital LP	9	44,832	1/29/2020	1/29/2030
RFA Holding LLC	11	5,604	1/29/2020	1/29/2030

THIS WARRANT AND THE UNDERLYING SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THIS WARRANT AND THE UNDERLYING SECURITIES MAY NOT BE SOLD OR TRANSFERRED WITHOUT (I) AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO, (II) AN OPINION OF COUNSEL FOR THE HOLDER, SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR (III) RECEIPT OF A NO ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION. COPIES OF THE AGREEMENT COVERING THE ACQUISITION OF THIS WARRANT AND RESTRICTING ITS TRANSFER MAY BE OBTAINED AT NO COST BY WRITTEN REQUEST MADE BY THE HOLDER OF RECORD OF THIS WARRANT TO THE SECRETARY OF THE COMPANY AT THE PRINCIPAL EXECUTIVE OFFICES OF THE COMPANY.

Void after _____

LYRA THERAPEUTICS, INC.

COMMON STOCK WARRANT

Warrant No. __

THIS CERTIFIES THAT, for value received, _____ or its registered assigns (hereinafter called the "Holder") is entitled to purchase from Lyra Therapeutics, Inc., a Delaware corporation, with its principal place of business at 480 Arsenal Way, Watertown, MA 02472 (the "Company"), at any time after the date specified in Section 1 hereof and ending at 5:00 p.m. Eastern Time on the Expiration Date, as such term is defined in Section 1 hereof, up to _____ shares of the Company's common stock, par value $0.001 per share (the "Common Stock"), subject to adjustment as set forth herein.

This Warrant (the "Warrant") is being issued pursuant to the terms of that certain Series C Convertible Preferred Stock and Warrant Purchase Agreement, dated as of January 10, 2020, by and among, the Company and the purchasers set forth on Schedule A therein (the "**Purchase Agreement**"). This Warrant may be exercised in whole or in part, at any time through to the Expiration Date (as defined below) at the option of the Holder.

1. **Definitions**. As used herein, the following terms shall have the following respective meanings. Any capitalized terms not defined herein shall have the meaning given to them in the Purchase Agreement.

(a) "Exercise Price" shall mean the fair market value of the Company's Common Stock following the Initial Closing (as determined by the Board of Directors, in good faith, based on the most recent independent third party valuation of the Company available following the Initial Closing performed pursuant to Section 409A of the Code, and taking into account any changes to the Company's business between the date of such third party valuation and the Initial Closing), subject to adjustments pursuant to Section 5 below.

(b) Subject to Section 2, "Expiration Date" shall mean the period ending on the earlier of (i) _____, (ii) immediately prior to the closing of the initial public offering of Common Stock ("IPO"), (iii) immediately prior to the closing of a Liquidation Transaction, or (iv) unless terminated earlier as provided below.

(c) "Liquidation Transaction" shall be deemed to be occasioned by, or to include, any Deemed Liquidation Event (as defined in the Amended and Restated Certificate of Incorporation of the Company, as in effect as of the date hereof).

(d) "Warrant Shares" shall mean the shares of the Common Stock issuable upon exercise of this Warrant, subject to adjustments pursuant to the terms herein, including but not limited to adjustment pursuant to Section 5 below.

2. **Term and Exercise Schedule**. This Warrant shall be exercisable, in whole or in part, at any time, through the Expiration Date. If the Expiration Date is occasioned by either the closing of the IPO or a Liquidation Transaction and to the extent that the fair market value of one Warrant Share (as determined in accordance with Section 3.3(b)) would be greater than the Exercise Price in effect on such date immediately prior to such IPO or Liquidation Transaction, and the Holder has not exercised this Warrant pursuant to Sections 3.1 and 3.2 below as to all Warrant Shares, then this Warrant shall automatically be deemed to be Net Exercised pursuant to Section 3.3(a) as to all Warrant Shares for which it shall not previously have been exercised, effective immediately prior to and contingent upon the closing of the IPO or Liquidation Transaction. In the event of an IPO or Liquidation Transaction where the fair market value of one Warrant Share as determined in accordance with Section 3.3(b) would be less than the Exercise Price in effect immediately prior to such IPO or Liquidation Transaction, then this Warrant will expire immediately prior to the closing of such IPO or Liquidation Transaction.

3. **Method of Exercise; Payment; Issuance of New Warrant**. The purchase right represented by this Warrant may be exercised by the Holder, in whole or in part, by:

3.1. the surrender of this Warrant (with an executed notice of exercise in the form attached hereto as Attachment A and an duly executed Investment Representation Statement in the form attached hereto as Attachment B) by delivery to the Company at its address set forth above (or such other address as it may designate by notice in writing to the Holder); and

3.2. the payment to the Company, by check, wire transfer, forgiveness of indebtedness, or any combination of the foregoing, of an amount equal to the then applicable Exercise Price per share multiplied by the number of Warrant Shares then being purchased.

If this Warrant should be exercised, the Company shall, upon surrender of this Warrant, execute and deliver a certificate representing the Common Stock issued to the Holder upon such exercise, and if this Warrant should be exercised in part only, a new Warrant of the same tenor evidencing the rights of the Holder thereof to purchase the balance of the Warrant

Shares purchasable hereunder. Upon receipt by the Company of this Warrant and such notice of exercise, together with, if applicable, the aggregate Exercise Price, at such office, or by the stock transfer agent or warrant agent of the Company at its office, the Holder shall be deemed to be the holder of record of the applicable Warrant Shares, notwithstanding that the stock transfer books of the Company shall then be closed. The Company shall pay any and all documentary stamp or similar issue or transfer taxes payable in respect of the issue or delivery of the Warrant Shares.

3.3. **Net Exercise**.

(a) **Conversion Right**. In addition to and without limiting the rights of the Holder under the terms of this Warrant, the Holder may elect to convert this Warrant or any portion thereof (the "Conversion Right") into Warrant Shares, the aggregate value of such Warrant Shares shall be equal to the value of this Warrant or the portion thereof being converted. The Conversion Right may be exercised automatically as provided herein and by the Holder by surrender of this Warrant at the principal office of the Company together with notice of the Holder's intention to exercise the Conversion Right, in which event the Company shall issue to the Holder a number of Warrant Shares computed using the following formula:

$$X = \frac{Y(A - B)}{A}$$

Where:

X - The number of Warrant Shares to be issued to the Holder upon exercise of the Conversion Right.

Y - The number of Warrant Shares issuable upon exercise of this Warrant (or such lesser number as are being exercised).

A - The fair market value of one Warrant Share, as determined pursuant to Section 3.3(b) hereof, as of the time the Conversion Right is exercised pursuant to this Section 3.

B - Exercise Price for one Warrant Share under this Warrant (as adjusted to the date of such calculations).

Notwithstanding the foregoing, this Warrant shall be deemed to have converted into Warrant Shares pursuant to this Section 3.3(a) upon the Expiration Date if not previously exercised or converted before such date.

(b) **Fair Market Value**. For purposes of Section 3.3(a), the fair market value of one Warrant Share shall be determined by the Board of Directors of the Company, acting in good faith; *provided, however,* that:

(i) where a public market exists for the Common Stock at the time of such exercise, then:

(A) the fair market value of one Warrant Share shall be the last closing price per share of the Common Stock on the principal national securities exchange on which the Common Stock is listed or admitted to trading; or

(B) the average of the bid and asked price per share as reported in the "pink sheets" published by the National Quotation Bureau, Inc. if the Common Stock is not listed or traded on any exchange; or

(C) if such quotations are not available, the fair market value of that number of shares of the Common Stock into which one Warrant Share is convertible on the date such notice was received by the Company, as determined in good faith by the Board of Directors of the Company.

(ii) if the Warrant is exercised in connection with the IPO, the fair market value of one Warrant Share shall be the per share offering price of Common Stock to the public in the IPO; and

(iii) all such determinations to be appropriately adjusted for stock dividend, stock split, stock combination or other similar transactions during the applicable calculation period.

4. **Stock Fully Paid; Reservation of Warrant Shares**. All shares of stock which may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be duly authorized, validly issued, fully paid and nonassessable, and free from all taxes, liens, encumbrances and charges with respect to the issue thereof, except for the restrictions on transfer provided herein or under applicable federal and state securities laws and any liens or encumbrances created by or imposed by the Holder. During the period within which the rights represented by this Warrant may be exercised, the Company covenants that it will at all times cause to be reserved and kept available out of its authorized and unissued capital stock a sufficient number of shares of its Common Stock to provide for the exercise of the rights represented by this Warrant into Common Stock.

5. **Adjustment of Exercise Price and Number of Warrant Shares**. The number and kind of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

5.1. **Reclassification.** Upon any event whereby all of the outstanding shares of Common Stock are reclassified, exchanged, combined, substituted or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that the Holder would have had, if the Warrant Shares been outstanding on and as of the consummation of such event, provided that the aggregate purchase price shall remain the same and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 5.1 shall similarly apply to successive reclassifications, exchanges, combinations, substitutions, replacements or similar events.

5.2 **Subdivision or Combination of Warrant Shares**. If the Company at any time while this Warrant remains outstanding and unexpired shall subdivide the outstanding Common Stock into a greater number of shares, the number of Warrant Shares purchasable hereunder shall be proportionally increased and the Exercise Price shall be proportionately decreased, provided that the aggregate purchase price shall remain the same. If the Company at any time while this Warrant remains outstanding and unexpired shall combine or consolidate the outstanding Common Stock, into a lesser number of shares, then the number of Warrant Shares purchasable hereunder shall be proportionately decreased and the Exercise Price shall be proportionately increased, provided that the aggregate purchase price shall remain the same.

5.3. **Stock Dividends**. If the Company at any time while this Warrant is outstanding and unexpired declares or pays a dividend or distribution (other than as set forth in Sections 5.1 and 5.2) on the outstanding shares of Common Stock payable in Common Stock or other securities or property (other than cash), then upon exercise of this Warrant, for each Warrant Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Warrant Shares of record as of the date the dividend or distribution occurred.

5.4. **Adjustment of Number of Warrant Shares**. Upon each adjustment in the Exercise Price, the number of shares of stock purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of Warrant Shares purchasable immediately prior to such adjustment in the Exercise Price by a fraction, the numerator of which shall be the Exercise Price immediately prior to such adjustment and the denominator of which shall be the Exercise Price immediately thereafter.

5.5 **Notice/Certificate of Adjustment**. Upon each adjustment of the Exercise Price, class and/or number of Warrant Shares, the Company, at the Company's expense, shall notify the Holder in writing within a reasonable time setting forth the adjustments to the Exercise Price, class and/or number of Warrant Shares and facts upon which any such adjustment is based. The Company shall, upon written request from the Holder, furnish the Holder with a certificate of its Chief Executive Officer or Chief Financial Officer, including computations of such adjustment and the Exercise Price, class and number of shares of Common Stock in effect upon the date of such adjustment.

6. **Fractional Warrant Shares**. No fractional Warrant Shares will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment therefor upon the basis of the Exercise Price then in effect.

7. **Representations of the Company**. The Company represents and warrants to the Holder that (i) Section 2.2(j) of the Schedule of Exceptions sets forth a true and correct *pro forma* capitalization table of the Company reflecting the Company's fully diluted equity capitalization immediately following the Initial Closing (including all shares, options (including shares reserved under the Stock Plan), warrants, and other rights to acquire capital stock) and (ii) such capitalization table includes the names of the Company's securityholders, the number of shares of capital stock issued or issuable to such securityholder, and the fully diluted percentage interest of each such securityholder.

8. **Compliance with Securities Act; Non-transferability of Warrant; Disposition of Shares of Stock**.

8.1. **Compliance with Securities Act**. The Holder, by acceptance hereof, agrees that this Warrant and the Warrant Shares are being acquired for investment and that he, she or it will not offer, sell or otherwise dispose of this Warrant or any Warrant Shares except under circumstances which will not result in a violation of the Securities Act of 1933, as amended (the "Act"). Upon exercise of this Warrant, the Holder hereof shall confirm in writing, in a form attached hereto as Attachment B, that the Warrant Shares so purchased are being acquired for investment and not with a view toward distribution or resale. In addition, the Holder shall provide such additional information regarding such Holder's financial and investment background, as the Company may reasonably request, as is relevant for purposes of determining the Holder's suitability with respect to a purchase of the Warrant Shares. All Warrant Shares (unless registered under the Act) shall be stamped or imprinted with a legend in substantially the following form (in addition to any legend required under applicable state securities laws):

> THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THIS SECURITY MAY NOT BE SOLD OR TRANSFERRED WITHOUT (I) AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO, (II) AN OPINION OF COUNSEL FOR THE HOLDER, SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR (III) RECEIPT OF A NO ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION. COPIES OF THE WARRANT AGREEMENT COVERING THE ACQUISITION OF THIS SECURITY AND RESTRICTING ITS TRANSFER MAY BE OBTAINED AT NO COST BY WRITTEN REQUEST MADE BY THE HOLDER OF RECORD OF THIS SECURITY TO THE SECRETARY OF THE COMPANY AT THE PRINCIPAL EXECUTIVE OFFICES OF THE COMPANY.

8.2. **Transferability of Warrant**. This Warrant may not be transferred or assigned in whole or in part without (i) an effective registration statement related thereto, (ii) an opinion of counsel for the Holder, satisfactory to the Company, that such registration is not required under the Act or (iii) receipt of a no action letter from the Securities and Exchange Commission (together, "Securities Law Compliance Guarantees"); provided, however, that the Warrant may be transferred in whole or in part without Securities Law Compliance Guarantees upon any of the following provided that the transferee agrees in writing, by way of documentation reasonably acceptable to the Company, to be subject to the terms hereof to the same extent as if he/she were an original Holder hereunder:

(a) A transfer of the Warrant by a Holder who is a natural person during such Holder's lifetime or on death by will or intestacy to such Holder's immediate family or to any custodian or trustee for the account of such Holder or such Holder's immediate family, or a transfer of the Warrant by a Holder that is a trust to a natural person who is the beneficiary of such trust, to such beneficiary's immediate family or to any custodian or trustee for the account of such beneficiary or such beneficiary's immediate family. "Immediate family" as used herein shall mean spouse, lineal descendant, father, mother, brother, or sister of the Holder;

(b) A transfer of the Warrant to the Company;

(c) A transfer of the Warrant to a parent, subsidiary or affiliate of a Holder ; or

(d) A transfer of the Warrant by a Holder which is a limited or general partnership to any of its partners or former partners (with, a, b and c, a "Permitted Transfer").

9. **Rights of Stockholders**. No Holder of this Warrant shall be entitled to vote or receive dividends or be deemed the holder of stock 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 or change of stock to no par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise until this Warrant has been exercised and the Warrant Shares shall have become deliverable, as provided herein.

10. **Governing Law**. This Warrant and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the state of Delaware, without giving effect to principles of conflicts of law.

11. **Miscellaneous**. The headings in this Warrant are for purposes of convenience and reference only, and shall not be deemed to constitute a part hereof. All notices and other communications shall be delivered by hand or mailed by first-class registered or certified mail, postage prepaid, to the respective addresses provided in the Purchase Agreement, or to such other address as the Company or Holder may designate to the other parties hereto.

12. **Purchase Agreement**. This Warrant is a Warrant referred to in the Purchase Agreement and is entitled to all the benefits provided therein.

13. **Loss, Theft or Destruction of Warrant**. Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, mutilation or destruction of this Warrant and of indemnity or security reasonably satisfactory to it, the Company will make and deliver an affidavit of lost warrant which shall carry the same rights carried by this Warrant, stating that such affidavit of lost warrant is issued in replacement of this Warrant, making reference to the original date of issuance of this Warrant (and any successors hereto) and dated as of such cancellation, in lieu of this Warrant.

14. **Amendment and Waiver**. Any term of this Warrant may be amended or waived only with the written consent of the Company and the holders of at least a majority of the Warrant Shares then issuable upon exercise of the Warrants then outstanding that were issued pursuant to the Purchase Agreement. Any amendment or waiver effected in accordance with this Section 14 shall be binding upon the Holder and each transferee of the Warrant, each future holder of all such Warrants, and the Company.

15. **Counterparts: Facsimile/Electronic Signature**. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

(Remainder of Page Intentionally Left Blank)

IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed by its officers, thereunto duly authorized this ___ day of _____, 2020.

LYRA THERAPEUTICS, INC.

By: _____
Name: Maria Palasis
Title: Chief Executive Officer

[Signature Pages to Common Stock Warrant]

ATTACHMENT A TO WARRANT
NOTICE OF EXERCISE

TO: Lyra Therapeutics, Inc.

1. The undersigned hereby elects to purchase _____ shares of Common Stock of Lyra Therapeutics, Inc. as defined in that certain Series C Convertible Preferred Stock and Warrant Purchase Agreement, dated as of January 10, 2020, and pursuant to the terms of the attached Warrant, and tenders herewith payment of the purchase price of such shares in full, together with all applicable transfer taxes, if any.

2. The undersigned hereby elects to convert the attached Warrant into Warrant Shares in the manner specified in Section 3.3 of the Warrant. This conversion is exercised with respect to _____ of the Shares covered by the Warrant.

[Strike paragraph above that does not apply.]

3. Please issue a certificate or certificates representing said shares of stock in the name of the undersigned or in such other name as is specified below:

Name: _____

Address: _____

_____

_____

4. The undersigned represents that the aforesaid shares of stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares. In support thereof, the undersigned has executed an Investment Representation Statement attached hereto as Attachment B.

[HOLDER]

By: _____
Title: _____
Date: _____

ATTACHMENT B TO WARRANT
INVESTMENT REPRESENTATION STATEMENT

PURCHASER : _____
COMPANY : Lyra Therapeutics, Inc.
SECURITY : _____
AMOUNT : _____
DATE : _____

In connection with the purchase of the above-listed securities and underlying stock (the "**Securities**"), the undersigned represents to the Company the following:

(a) We are purchasing these Securities for our own account for investment purposes only and not with a view to, or for the resale in connection with, any "distribution" thereof for purposes of the Securities Act of 1933, as amended (the "**Act**").

(b) We understand that the Securities 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 our investment intent as expressed herein. In this connection, we understand that, in the view of the Securities and Exchange Commission (the "**SEC**"), the statutory basis for such exemption may be unavailable if our representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future.

(c) We further understand that the Securities must be held indefinitely unless subsequently registered under the Act or unless an exemption from registration is otherwise available. Moreover, we understand that the Company is under no obligation to register the Securities. In addition, we understand that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel for the Company.

(d) We are aware of the provisions of Rule 144, promulgated under the Act, which, in substance, permits limited public resale of "restricted securities" acquired, directly or indirectly, from the issuer thereof (or from an affiliate of such issuer), in a non-public offering subject to the satisfaction of certain conditions.

(e) We further understand that at the time we wish to sell the Securities there may be no public market upon which to make such a sale.

[HOLDER]

_____
(signature)

_____
(title)

Exhibit 5.1

200 Clarendon Street
Boston, Massachusetts 02116
Tel: +1.617.948.6000 Fax: +1.617.948.6001
www.lw.com

LATHAM & WATKINS LLP

FIRM / AFFILIATE OFFICES

Beijing	Moscow
Boston	Munich
Brussels	New York
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Chicago	Paris
Dubai	Riyadh
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Frankfurt	San Francisco
Hamburg	Seoul
Hong Kong	Shanghai
Houston	Silicon Valley
London	Singapore
Los Angeles	Tokyo
Madrid	Washington, D.C.
Milan	

April 27, 2020

Lyra Therapeutics, Inc.
480 Arsenal Way
Watertown, MA 02472

Re: Registration Statement No. 333-236962;
$64,400,000 of shares of Common Stock, $0.001 par value per share

Ladies and Gentlemen:

We have acted as special counsel to Lyra Therapeutics, Inc., a Delaware corporation (the "***Company***"), in connection with the proposed issuance of up to $64,400,000 of shares (including shares subject to the underwriters' option to purchase additional shares) of common stock, $0.001 par value per share (the "***Shares***"). The Shares are included in a registration statement on Form S-1 under the Securities Act of 1933, as amended (the "***Act***"), filed with the Securities and Exchange Commission (the "***Commission***") on March 6, 2020 (Registration No. 333-236962) (as amended, the "***Registration Statement***"). The term "Shares" shall include any additional shares of common stock registered by the Company pursuant to Rule 462(b) under the Act in connection with the offering contemplated by the Registration Statement. This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related Prospectus, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company against payment therefor (not less than par value) in total numbers that do not

exceed the total number of shares available under the Company's certificate of incorporation and in the circumstances contemplated by the form of underwriting agreement most recently filed as an exhibit to the Registration Statement, the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm in the Prospectus under the heading "Legal Matters." We further consent to the incorporation by reference of this letter and consent into any registration statement filed pursuant to Rule 462(b) with respect to the Shares. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ LATHAM & WATKINS LLP

LYRA THERAPEUTICS, INC.
2020 INCENTIVE AWARD PLAN

ARTICLE I.
PURPOSE

The Plan's purpose is to enhance the Company's ability to attract, retain and motivate persons who make (or are expected to make) important contributions to the Company by providing these individuals with equity ownership opportunities. Capitalized terms used in the Plan are defined in Article XI.

ARTICLE II.
ELIGIBILITY

Service Providers are eligible to be granted Awards under the Plan, subject to the limitations described herein.

ARTICLE III.
ADMINISTRATION AND DELEGATION

3.1 Administration. The Plan is administered by the Administrator. The Administrator has authority to determine which Service Providers receive Awards, grant Awards and set Award terms and conditions, subject to the conditions and limitations in the Plan. The Administrator also has the authority to take all actions and make all determinations under the Plan, to interpret the Plan and Award Agreements and to adopt, amend and repeal Plan administrative rules, guidelines and practices as it deems advisable. The Administrator may correct defects and ambiguities, supply omissions and reconcile inconsistencies in the Plan or any Award as it deems necessary or appropriate to administer the Plan and any Awards. The Administrator's determinations under the Plan are in its sole discretion and will be final and binding on all persons having or claiming any interest in the Plan or any Award.

3.2 Appointment of Committees. To the extent Applicable Laws permit, the Board may delegate any or all of its powers under the Plan to one or more Committees or officers of the Company or any of its Subsidiaries. The Board may abolish any Committee or re-vest in itself any previously delegated authority at any time.

ARTICLE IV.
STOCK AVAILABLE FOR AWARDS

4.1 Number of Shares. Subject to adjustment under Article VIII and the terms of this Article IV, Awards may be made under the Plan covering up to the sum of (i) 2,100,000 Shares; (ii) any shares of Common Stock which are subject to Prior Plan Awards which become available for issuance under the Plan pursuant to Article IV and (iii) an annual increase on the first day of each calendar year beginning January 1, 2021 and ending on and including January 1, 2030, equal to the lesser of (A) 4% of the aggregate number of shares of Common Stock outstanding on the final day of the immediately preceding calendar year and (B) such smaller number of Shares as is determined by the Board (collectively, the "***Overall Share Limit***"). As of the Plan's effective date under Section 10.3, the Company will cease granting awards under the Prior Plans; however, Prior Plan Awards will remain subject to the terms of the applicable Prior Plan. Shares issued under the Plan may consist of authorized but unissued Shares, Shares purchased on the open market or treasury Shares.

4.2 Share Recycling. If all or any part of an Award or Prior Plan Award expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, canceled without having been fully exercised or forfeited, in any case, in a manner that results in the Company acquiring Shares covered by the Award or Prior Plan Award at a price not greater than the price (as adjusted to reflect any Equity Restructuring) paid by the Participant for such Shares or not issuing any Shares covered by the Award or Prior Plan Award, the unused Shares covered by the Award or Prior Plan Award will, as applicable, become or again be available for Award grants under the Plan. Further, Shares delivered (either by actual delivery or attestation) to the Company by a Participant to satisfy the applicable exercise or purchase price of an Award or Prior Plan Award and/or to satisfy any applicable tax withholding obligation (including Shares retained by the Company from the Award or Prior Plan Award being exercised or purchased and/or creating the tax obligation) will, as applicable, become or again be available for Award grants under the Plan. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards or Prior Plan Awards shall not count against the Overall Share Limit.

4.3 Incentive Stock Option Limitations. Notwithstanding anything to the contrary herein, no more than 8,800,000 Shares may be issued pursuant to the exercise of Incentive Stock Options.

4.4 Substitute Awards. In connection with an entity's merger or consolidation with the Company or the Company's acquisition of an entity's property or stock, the Administrator may grant Awards in substitution for any options or other stock or stock-based awards granted before such merger or consolidation by such entity or its affiliate. Substitute Awards may be granted on such terms as the Administrator deems appropriate, notwithstanding limitations on Awards in the Plan. Substitute Awards will not count against the Overall Share Limit (nor shall Shares subject to a Substitute Award be added to the Shares available for Awards under the Plan as provided above), except that Shares acquired by exercise of substitute Incentive Stock Options will count against the maximum number of Shares that may be issued pursuant to the exercise of Incentive Stock Options under the Plan. Additionally, in the event that a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines has shares available under a pre-existing plan approved by stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may be used for Awards under the Plan and shall not reduce the Shares authorized for grant under the Plan (and Shares subject to such Awards shall not be added to the Shares available for Awards under the Plan as provided above); provided that Awards using such available shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not Employees or Directors prior to such acquisition or combination.

4.5 Non-Employee Director Compensation. Notwithstanding any provision to the contrary in the Plan, the Administrator may establish compensation for non-employee Directors from time to time, subject to the limitations in the Plan. The Administrator will from time to time determine the terms, conditions and amounts of all such non-employee Director compensation in its discretion and pursuant to the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, provided that the sum of any cash compensation, or other compensation, and the value (determined as of the grant date in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or any successor thereto) of Awards granted to a non-employee Director as compensation for services as a non-employee Director during any fiscal year of the Company may not exceed $600,000, increased to $900,000 in the fiscal year in which the Plan's effective date occurs or in the fiscal year of a non-employee Director's initial service as a non-employee

Director. 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 contemporaneous compensation decisions involving non-employee Directors.

ARTICLE V.
STOCK OPTIONS AND STOCK APPRECIATION RIGHTS

5.1 General. The Administrator may grant Options or Stock Appreciation Rights to Service Providers subject to the limitations in the Plan, including any limitations in the Plan that apply to Incentive Stock Options. The Administrator will determine the number of Shares covered by each Option and Stock Appreciation Right, the exercise price of each Option and Stock Appreciation Right and the conditions and limitations applicable to the exercise of each Option and Stock Appreciation Right. A Stock Appreciation Right will entitle the Participant (or other person entitled to exercise the Stock Appreciation Right) to receive from the Company upon exercise of the exercisable portion of the Stock Appreciation Right an amount determined by multiplying the excess, if any, of the Fair Market Value of one Share on the date of exercise over the exercise price per Share of the Stock Appreciation Right by the number of Shares with respect to which the Stock Appreciation Right is exercised, subject to any limitations of the Plan or that the Administrator may impose and payable in cash, Shares valued at Fair Market Value or a combination of the two as the Administrator may determine or provide in the Award Agreement.

5.2 Exercise Price. The Administrator will establish each Option's and Stock Appreciation Right's exercise price and specify the exercise price in the Award Agreement. The exercise price will not be less than 100% of the Fair Market Value on the grant date of the Option or Stock Appreciation Right.

5.3 Duration. Each Option or Stock Appreciation Right will be exercisable at such times and as specified in the Award Agreement, provided that the term of an Option or Stock Appreciation Right will not exceed ten years. Notwithstanding the foregoing and unless determined otherwise by the Company, in the event that on the last business day of the term of an Option or Stock Appreciation Right (other than an Incentive Stock Option) (i) the exercise of the Option or Stock Appreciation Right is prohibited by Applicable Law, as determined by the Company, or (ii) Shares may not be purchased or sold by the applicable Participant due to any Company insider trading policy (including blackout periods) or a "lock-up" agreement undertaken in connection with an issuance of securities by the Company, the term of the Option or Stock Appreciation Right shall be extended until the date that is thirty (30) days after the end of the legal prohibition, black-out period or lock-up agreement, as determined by the Company; provided, however, in no event shall the extension last beyond the ten year term of the applicable Option or Stock Appreciation Right. Notwithstanding the foregoing, if the Participant, prior to the end of the term of an Option or Stock Appreciation Right, violates the non-competition, non-solicitation, confidentiality or other similar restrictive covenant provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company or any of its Subsidiaries, the right of the Participant and the Participant's transferees to exercise any Option or Stock Appreciation Right issued to the Participant shall terminate immediately upon such violation, unless the Company otherwise determines. In addition, if, prior to the end of the term of an Option or Stock Appreciation Right, the Participant is given notice by the Company or any of its Subsidiaries of the Participant's Termination of Service by the Company or any of its Subsidiaries for Cause, and the effective date of such Termination of Service is subsequent to the date of the delivery of such notice, the right of the Participant and the Participant's transferees to exercise any Option or Stock Appreciation Right issued to the Participant shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant's service as a Service Provider will not be terminated for Cause as provided in such notice or (ii) the effective date of the Participant's Termination of Service by the Company or any of its Subsidiaries for Cause (in which case the right of the Participant and the Participant's transferees to exercise any Option or Stock Appreciation Right issued to the Participant will terminate immediately upon the effective date of such termination of Service).

5.4 Exercise. Options and Stock Appreciation Rights may be exercised by delivering to the Company a written notice of exercise, in a form the Administrator approves (which may be electronic), signed by the person authorized to exercise the Option or Stock Appreciation Right, together with, as applicable, payment in full (i) as specified in Section 5.5 for the number of Shares for which the Award is exercised and (ii) as specified in Section 9.5 for any applicable taxes. Unless the Administrator otherwise determines, an Option or Stock Appreciation Right may not be exercised for a fraction of a Share.

5.5 Payment Upon Exercise. Subject to Section 10.8, any Company insider trading policy (including blackout periods) and Applicable Laws, the exercise price of an Option must be paid by:

(a) cash, wire transfer of immediately available funds or by check payable to the order of the Company, provided that the Company may limit the use of one of the foregoing payment forms if one or more of the payment forms below is permitted;

(b) if there is a public market for Shares at the time of exercise, unless the Company otherwise determines, (A) delivery (including telephonically to the extent permitted by the Company) of an irrevocable and unconditional undertaking by a broker acceptable to the Company to deliver promptly to the Company sufficient funds to pay the exercise price, or (B) the Participant's delivery to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company cash or a check sufficient to pay the exercise price; provided that such amount is paid to the Company at such time as may be required by the Administrator;

(c) to the extent permitted by the Administrator, delivery (either by actual delivery or attestation) of Shares owned by the Participant valued at their Fair Market Value;

(d) to the extent permitted by the Administrator, surrendering Shares then issuable upon the Option's exercise valued at their Fair Market Value on the exercise date;

(e) to the extent permitted by the Administrator, delivery of a promissory note or any other property that the Administrator determines is good and valuable consideration; or

(f) to the extent permitted by the Company, any combination of the above payment forms approved by the Administrator.

ARTICLE VI.
RESTRICTED STOCK; RESTRICTED STOCK UNITS

6.1 General. The Administrator may grant Restricted Stock, or the right to purchase Restricted Stock, to any Service Provider, subject to the Company's right to repurchase all or part of such shares at their issue price or other stated or formula price from the Participant (or to require forfeiture of such shares) if conditions the Administrator specifies in the Award Agreement are not satisfied before the end of the applicable restriction period or periods that the Administrator establishes for such Award. In addition, the Administrator may grant to Service Providers Restricted Stock Units, which may be subject to vesting and forfeiture conditions during the applicable restriction period or periods, as set forth in an Award Agreement. The Administrator will determine and set forth in the Award Agreement the terms and conditions for each Restricted Stock and Restricted Stock Unit Award, subject to the conditions and limitations contained in the Plan.

6.2 Restricted Stock.

(a) Dividends. Participants holding shares of Restricted Stock will be entitled to all ordinary cash dividends paid with respect to such Shares, unless the Administrator provides otherwise in the Award Agreement. In addition, unless the Administrator provides otherwise, if any dividends or distributions are paid in Shares, or consist of a dividend or distribution to holders of Common Stock of property other than an ordinary cash dividend, the Shares or other property will be subject to the same restrictions on transferability and forfeitability as the shares of Restricted Stock with respect to which they were paid.

(b) Stock Certificates. The Company may require that the Participant deposit in escrow with the Company (or its designee) any stock certificates issued in respect of shares of Restricted Stock, together with a stock power endorsed in blank.

6.3 Restricted Stock Units.

(a) Settlement. The Administrator may provide that settlement of Restricted Stock Units will occur upon or as soon as reasonably practicable after the Restricted Stock Units vest or will instead be deferred, on a mandatory basis or at the Participant's election, in a manner intended to comply with Section 409A.

(b) Stockholder Rights. A Participant will have no rights of a stockholder with respect to Shares subject to any Restricted Stock Unit unless and until the Shares are delivered in settlement of the Restricted Stock Unit.

(c) Dividend Equivalents. If the Administrator provides, a grant of Restricted Stock Units may provide a Participant with the right to receive Dividend Equivalents. Dividend Equivalents may be paid currently or credited to an account for the Participant, settled in cash or Shares and subject to the same restrictions on transferability and forfeitability as the Restricted Stock Units with respect to which the Dividend Equivalents are granted and subject to other terms and conditions as set forth in the Award Agreement.

ARTICLE VII.
OTHER STOCK OR CASH BASED AWARDS

Other Stock or Cash Based Awards may be granted to Participants, including Awards entitling Participants to receive Shares to be delivered in the future and including annual or other periodic or long-term cash bonus awards (whether based on specified Performance Criteria or otherwise), in each case subject to any conditions and limitations in the Plan. Such Other Stock or Cash Based Awards will also be available as a payment form in the settlement of other Awards, as standalone payments and as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock or Cash Based Awards may be paid in Shares, cash or other property, as the Administrator determines. Subject to the provisions of the Plan, the Administrator will determine the terms and conditions of each Other Stock or Cash Based Award, including any purchase price, performance goal (which may be based on the Performance Criteria), transfer restrictions, and vesting conditions, which will be set forth in the applicable Award Agreement.

ARTICLE VIII.
ADJUSTMENTS FOR CHANGES IN COMMON STOCK
AND CERTAIN OTHER EVENTS

8.1 Equity Restructuring(a) . In connection with any Equity Restructuring, notwithstanding anything to the contrary in this Article VIII, the Administrator will equitably adjust each outstanding Award as it deems appropriate to reflect the Equity Restructuring, which may include adjusting the number and type of securities subject to each outstanding Award and/or the Award's exercise price or grant price (if applicable), granting new Awards to Participants, and making a cash payment to Participants. The adjustments provided under this Section 8.1 will be nondiscretionary and final and binding on the affected Participant and the Company; provided that the Administrator will determine whether an adjustment is equitable.

8.2 Corporate Transactions. In the event of any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), reorganization, merger, consolidation, combination, amalgamation, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of all or substantially all of the assets of the Company, or sale or exchange of Common Stock or other securities of the Company, Change in Control, issuance of warrants or other rights to purchase Common Stock or other securities of the Company, other similar corporate transaction or event, other unusual or nonrecurring transaction or event affecting the Company or its financial statements or any change in any Applicable Laws or accounting principles, the Administrator, on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event (except that action to give effect to a change in Applicable Law or accounting principles may be made within a reasonable period of time after such change) and either automatically or upon the Participant's request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to (x) prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the Plan or with respect to any Award granted or issued under the Plan, (y) to facilitate such transaction or event or (z) give effect to such changes in Applicable Laws or accounting principles:

(a) To provide for the cancellation of any such Award in exchange for either an amount of cash or other property with a value equal to the amount that could have been obtained upon the exercise or settlement of the vested portion of such Award or realization of the Participant's rights under the vested portion of such Award, as applicable; provided that, if the amount that could have been obtained upon the exercise or settlement of the vested portion of such Award or realization of the Participant's rights, in any case, is equal to or less than zero, then the Award may be terminated without payment;

(b) To provide that such Award shall vest and, to the extent applicable, be exercisable as to all shares covered thereby, notwithstanding anything to the contrary in the Plan or the provisions of such Award;

(c) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and/or applicable exercise or purchase price, in all cases, as determined by the Administrator;

(d) To make adjustments in the number and type of shares of Common Stock (or other securities or property) subject to outstanding Awards and/or with respect to which Awards may be granted under the Plan (including, but not limited to, adjustments of the limitations in Article IV hereof on the maximum number and kind of shares which may be issued) and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards;

(e) To replace such Award with other rights or property selected by the Administrator; and/or

(f) To provide that the Award will terminate and cannot vest, be exercised or become payable after the applicable event.

8.3 Administrative Stand Still. In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other extraordinary transaction or change affecting the Shares or the share price of Common Stock, including any Equity Restructuring or any securities offering or other similar transaction, for administrative convenience, the Administrator may refuse to permit the exercise of any Award for up to sixty days before or after such transaction.

8.4 General. Except as expressly provided in the Plan or the Administrator's action under the Plan, no Participant will have any rights due to any subdivision or consolidation of Shares of any class, dividend payment, increase or decrease in the number of Shares of any class or dissolution, liquidation, merger, or consolidation of the Company or other corporation. Except as expressly provided with respect to an Equity Restructuring under Section 8.1 above or the Administrator's action under the Plan, no issuance by the Company of Shares of any class, or securities convertible into Shares of any class, will affect, and no adjustment will be made regarding, the number of Shares subject to an Award or the Award's grant or exercise price. The existence of the Plan, any Award Agreements and the Awards granted hereunder will not affect or restrict in any way the Company's right or power to make or authorize (i) any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, (ii) any merger, consolidation dissolution or liquidation of the Company or sale of Company assets or (iii) any sale or issuance of securities, including securities with rights superior to those of the Shares or securities convertible into or exchangeable for Shares. The Administrator may treat Participants and Awards (or portions thereof) differently under this Article VIII.

ARTICLE IX.
GENERAL PROVISIONS APPLICABLE TO AWARDS

9.1 Transferability. Except as the Administrator may determine or provide in an Award Agreement or otherwise for Awards other than Incentive Stock Options, Awards may not be sold, assigned, transferred, pledged or otherwise encumbered, either voluntarily or by operation of law, except by will or the laws of descent and distribution, or, subject to the Administrator's consent, pursuant to a domestic relations order, and, during the life of the Participant, will be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, will include references to a Participant's authorized transferee that the Administrator specifically approves.

9.2 Documentation. Each Award will be evidenced in an Award Agreement, which may be written or electronic, as the Administrator determines. Each Award may contain terms and conditions in addition to those set forth in the Plan.

9.3 Discretion. Except as the Plan otherwise provides, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award to a Participant need not be identical, and the Administrator need not treat Participants or Awards (or portions thereof) uniformly.

9.4 Termination of Status. The Administrator will determine how the disability, death, retirement, authorized leave of absence or any other change or purported change in a Participant's Service Provider status affects an Award and the extent to which, and the period during which, the Participant, the Participant's legal representative, conservator, guardian or Designated Beneficiary may exercise rights under the Award, if applicable.

9.5 Withholding. Each Participant must pay the Company, or make provision satisfactory to the Administrator for payment of, any taxes required by law to be withheld in connection with such Participant's Awards by the date of the event creating the tax liability. The Company may deduct an amount sufficient to satisfy such tax obligations based on the applicable statutory withholding rates (or such other rate as may be determined by the Company after considering any accounting consequences or costs) from any payment of any kind otherwise due to a Participant. Subject to Section 10.8 and any Company insider trading policy (including blackout periods), Participants may satisfy such tax obligations (i) in cash, by wire transfer of immediately available funds, by check made payable to the order of the Company, provided that the Company may limit the use of the foregoing payment forms if one or more of the payment forms below is permitted, (ii) to the extent permitted by the Administrator, in whole or in part by delivery of Shares, including Shares retained from the Award creating the tax obligation, valued at their Fair Market Value, (iii) if there is a public market for Shares at the time the tax obligations are satisfied, unless the Company otherwise determines, (A) delivery (including telephonically to the extent permitted by the Company) of an irrevocable and unconditional undertaking by a broker acceptable to the Company to deliver promptly to the Company sufficient funds to satisfy the tax obligations, or (B) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company cash or a check sufficient to satisfy the tax withholding; provided that such amount is paid to the Company at such time as may be required by the Administrator, or (iv) to the extent permitted by the Company, any combination of the foregoing payment forms approved by the Administrator. If any tax withholding obligation will be satisfied under clause (ii) of the immediately preceding sentence by the Company's retention of Shares from the Award creating the tax obligation and there is a public market for Shares at the time the tax obligation is satisfied, the Company may elect to instruct any brokerage firm determined acceptable to the Company for such purpose to sell on the applicable Participant's behalf some or all of the Shares retained and to remit the proceeds of the sale to the Company or its designee, and each Participant's acceptance of an Award under the Plan will constitute the Participant's authorization to the Company and instruction and authorization to such brokerage firm to complete the transactions described in this sentence.

9.6 Amendment of Award; Repricing. The Administrator may amend, modify or terminate any outstanding Award, including by substituting another Award of the same or a different type, changing the exercise or settlement date, and converting an Incentive Stock Option to a Non-Qualified Stock Option. The Participant's consent to such action will be required unless (i) the action, taking into account any related action, does not materially and adversely affect the Participant's rights under the Award, or (ii) the change is permitted under Article VIII or pursuant to Section 10.6. Further, the Administrator may, without the approval of the stockholders of the Company, reduce the exercise price per share of outstanding Options or Stock Appreciation Rights or cancel outstanding Options or Stock Appreciation Rights in exchange for cash, other Awards or Options or Stock Appreciation Rights with an exercise price per share that is less than the exercise price per share of the original Options or Stock Appreciation Rights.

9.7 Conditions on Delivery of Stock. The Company will not be obligated to deliver any Shares under the Plan or remove restrictions from Shares previously delivered under the Plan until (i) all Award conditions have been met or removed to the Company's satisfaction, (ii) as determined by the Company, all other legal matters regarding the issuance and delivery of such Shares have been satisfied, including any applicable securities laws and stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Administrator deems necessary or appropriate to satisfy any Applicable Laws. The Company's inability to obtain authority from any regulatory body having jurisdiction, which the Administrator determines is necessary to the lawful issuance and sale of any securities, will relieve the Company of any liability for failing to issue or sell such Shares as to which such requisite authority has not been obtained.

9.8 Acceleration. The Administrator may at any time provide that any Award will become immediately vested and fully or partially exercisable, free of some or all restrictions or conditions, or otherwise fully or partially realizable.

9.9 Additional Terms of Incentive Stock Options. The Administrator may grant Incentive Stock Options only to employees of the Company, any of its present or future parent or subsidiary corporations, as defined in Sections 424(e) or (f) of the Code, respectively, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code. If an Incentive Stock Option is granted to a Greater Than 10% Stockholder, the exercise price will not be less than 110% of the Fair Market Value on the Option's grant date, and the term of the Option will not exceed five years. All Incentive Stock Options will be subject to and construed consistently with Section 422 of the Code. By accepting an Incentive Stock Option, the Participant agrees to give prompt notice to the Company of dispositions or other transfers (other than in connection with a Change in Control) of Shares acquired under the Option made within (i) two years from the grant date of the Option or (ii) one year after the transfer of such Shares to the Participant, specifying the date of the disposition or other transfer and the amount the Participant realized, in cash, other property, assumption of indebtedness or other consideration, in such disposition or other transfer. Neither the Company nor the Administrator will be liable to a Participant, or any other party, if an Incentive Stock Option fails or ceases to qualify as an "incentive stock option" under Section 422 of the Code. Any Incentive Stock Option or portion thereof that fails to qualify as an "incentive stock option" under Section 422 of the Code for any reason, including becoming exercisable with respect to Shares having a fair market value exceeding the $100,000 limitation under Treasury Regulation Section 1.422-4, will be a Non-Qualified Stock Option.

ARTICLE X.
MISCELLANEOUS

10.1 No Right to Employment or Other Status. No person will have any claim or right to be granted an Award, and the grant of an Award will not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan or any Award, except as expressly provided in an Award Agreement.

10.2 No Rights as Stockholder; Certificates. Subject to the Award Agreement, no Participant or Designated Beneficiary will have any rights as a stockholder with respect to any Shares to be distributed under an Award until becoming the record holder of such Shares. Notwithstanding any other provision of the Plan, unless the Administrator otherwise determines or Applicable Laws require, the Company will not be required to deliver to any Participant certificates evidencing Shares issued in connection with any Award and instead such Shares may be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator). The Company may place legends on stock certificates issued under the Plan that the Administrator deems necessary or appropriate to comply with Applicable Laws.

10.3 Effective Date and Term of Plan. Unless earlier terminated by the Board, the Plan will become effective on the day prior to the Public Trading Date and will remain in effect until the tenth anniversary of the earlier of (i) the date the Board adopted the Plan or (ii) the date the Company's stockholders approved the Plan, but Awards previously granted may extend beyond that date in accordance with the Plan. If the Plan is not approved by the Company's stockholders, the Plan will not become effective, no Awards will be granted under the Plan and the Prior Plans will continue in full force and effect in accordance with their terms.

10.4 Amendment of Plan. The Administrator may amend, suspend or terminate the Plan at any time; provided that no amendment, other than an increase to the Overall Share Limit, may materially and adversely affect any Award outstanding at the time of such amendment without the affected Participant's consent. No Awards may be granted under the Plan during any suspension period or after Plan termination. Awards outstanding at the time of any Plan suspension or termination will continue to be governed by the Plan and the Award Agreement, as in effect before such suspension or termination. The Board will obtain stockholder approval of any Plan amendment to the extent necessary to comply with Applicable Laws.

10.5 Provisions for Foreign Participants. The Administrator may modify Awards granted to Participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the Plan to address differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

10.6 Section 409A.

(a) General. The Company intends that all Awards be structured to comply with, or be exempt from, Section 409A, such that no adverse tax consequences, interest, or penalties under Section 409A apply. Notwithstanding anything in the Plan or any Award Agreement to the contrary, the Administrator may, without a Participant's consent, amend this Plan or Awards, adopt policies and procedures, or take any other actions (including amendments, policies, procedures and retroactive actions) as are necessary or appropriate to preserve the intended tax treatment of Awards, including any such actions intended to (A) exempt this Plan or any Award from Section 409A, or (B) comply with Section 409A, including regulations, guidance, compliance programs and other interpretative authority that may be issued after an Award's grant date. The Company makes no representations or warranties as to an Award's tax treatment under Section 409A or otherwise. The Company will have no obligation under this Section 10.6 or otherwise to avoid the taxes, penalties or interest under Section 409A with respect to any Award and will have no liability to any Participant or any other person if any Award, compensation or other benefits under the Plan are determined to constitute noncompliant "nonqualified deferred compensation" subject to taxes, penalties or interest under Section 409A.

(b) Separation from Service. If an Award constitutes "nonqualified deferred compensation" under Section 409A, any payment or settlement of such Award upon a termination of a Participant's Service Provider relationship will, to the extent necessary to avoid taxes under Section 409A, be made only upon the Participant's "separation from service" (within the meaning of Section 409A), whether such "separation from service" occurs upon or after the termination of the Participant's Service Provider relationship. For purposes of this Plan or any Award Agreement relating to any such payments or benefits, references to a "termination," "termination of employment" or like terms means a "separation from service."

(c) Payments to Specified Employees. Notwithstanding any contrary provision in the Plan or any Award Agreement, any payment(s) of "nonqualified deferred compensation" required to be made under an Award to a "specified employee" (as defined under Section 409A and as the Administrator determines) due to his or her "separation from service" will, to the extent necessary to avoid taxes under Section 409A(a)(2)(B)(i) of the Code, be delayed for the six-month period immediately

following such "separation from service" (or, if earlier, until the specified employee's death) and will instead be paid (as set forth in the Award Agreement) on the day immediately following such six-month period or as soon as administratively practicable thereafter (without interest). Any payments of "nonqualified deferred compensation" under such Award payable more than six months following the Participant's "separation from service" will be paid at the time or times the payments are otherwise scheduled to be made.

10.7 Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, other employee or agent of the Company or any Subsidiary will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan or any Award, and such individual will not be personally liable with respect to the Plan because of any contract or other instrument executed in his or her capacity as an Administrator, director, officer, other employee or agent of the Company or any Subsidiary. The Company will indemnify and hold harmless each director, officer, other employee and agent of the Company or any Subsidiary that has been or will be granted or delegated any duty or power relating to the Plan's administration or interpretation, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Administrator's approval) arising from any act or omission concerning this Plan unless arising from such person's own fraud or bad faith.

10.8 Lock-Up Period. The Company may, at the request of any underwriter representative or otherwise, in connection with registering the offering of any Company securities under the Securities Act, prohibit Participants from, directly or indirectly, selling or otherwise transferring any Shares or other Company securities during a period of up to one hundred eighty days following the effective date of a Company registration statement filed under the Securities Act, or such longer period as determined by the underwriter.

10.9 Data Privacy. As a condition for receiving any Award, each Participant explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this section by and among the Company and its Subsidiaries and affiliates exclusively for implementing, administering and managing the Participant's participation in the Plan. The Company and its Subsidiaries and affiliates may hold certain personal information about a Participant, including the Participant's name, address and telephone number; birthdate; social security, insurance number or other identification number; salary; nationality; job title(s); any Shares held in the Company or its Subsidiaries and affiliates; and Award details, to implement, manage and administer the Plan and Awards (the "***Data***"). The Company and its Subsidiaries and affiliates may transfer the Data amongst themselves as necessary to implement, administer and manage a Participant's participation in the Plan, and the Company and its Subsidiaries and affiliates may transfer the Data to third parties assisting the Company with Plan implementation, administration and management. These recipients may be located in the Participant's country, or elsewhere, and the Participant's country may have different data privacy laws and protections than the recipients' country. By accepting an Award, each Participant authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, to implement, administer and manage the Participant's participation in the Plan, including any required Data transfer to a broker or other third party with whom the Company or the Participant may elect to deposit any Shares. The Data related to a Participant will be held only as long as necessary to implement, administer, and manage the Participant's participation in the Plan. A Participant may, at any time, view the Data that the Company holds regarding such Participant, request additional information about the storage and processing of the Data regarding such Participant, recommend any necessary corrections to the Data regarding the Participant or refuse or withdraw the consents in this Section 10.9 in writing, without cost, by contacting the local human resources representative. The Company may cancel Participant's ability to participate in the Plan and, in the Administrator's discretion, the Participant may forfeit any outstanding Awards if the Participant refuses or withdraws the consents in this Section 10.9. For more information on the consequences of refusing or withdrawing consent, Participants may contact their local human resources representative.

10.10 Severability. If any portion of the Plan or any action taken under it is held illegal or invalid for any reason, the illegality or invalidity will not affect the remaining parts of the Plan, and the Plan will be construed and enforced as if the illegal or invalid provisions had been excluded, and the illegal or invalid action will be null and void.

10.11 Governing Documents. If any contradiction occurs between the Plan and any Award Agreement or other written agreement between a Participant and the Company (or any Subsidiary) that the Administrator has approved, the Plan will govern, unless it is expressly specified in such Award Agreement or other written document that a specific provision of the Plan will not apply.

10.12 Governing Law. The Plan and all Awards will be governed by and interpreted in accordance with the laws of the State of Delaware, disregarding any state's choice-of-law principles requiring the application of a jurisdiction's laws other than the State of Delaware.

10.13 Claw-back Provisions. All Awards (including any proceeds, gains or other economic benefit the Participant actually or constructively receives upon receipt or exercise of any Award or the receipt or resale of any Shares underlying the Award) will be subject to any Company claw-back policy, including any claw-back policy adopted to comply with Applicable Laws (including the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder) as set forth in such claw-back policy or the Award Agreement.

10.14 Titles and Headings. The titles and headings in the Plan are for convenience of reference only and, if any conflict, the Plan's text, rather than such titles or headings, will control.

10.15 Conformity to Securities Laws. Participant acknowledges that the Plan is intended to conform to the extent necessary with Applicable Laws. Notwithstanding anything herein to the contrary, the Plan and all Awards will be administered only in conformance with Applicable Laws. To the extent Applicable Laws permit, the Plan and all Award Agreements will be deemed amended as necessary to conform to Applicable Laws.

10.16 Relationship to Other Benefits. No payment under the Plan will be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Subsidiary except as expressly provided in writing in such other plan or an agreement thereunder.

10.17 Broker-Assisted Sales. In the event of a broker-assisted sale of Shares in connection with the payment of amounts owed by a Participant under or with respect to the Plan or Awards, including amounts to be paid under the final sentence of Section 9.5: (a) any Shares to be sold through the broker-assisted sale will be sold on the day the payment first becomes due, or as soon thereafter as practicable; (b) such Shares may be sold as part of a block trade with other Participants in the Plan in which all participants receive an average price; (c) the applicable Participant will be responsible for all broker's fees and other costs of sale, and by accepting an Award, each Participant agrees to indemnify and hold the Company harmless from any losses, costs, damages, or expenses relating to any such sale; (d) to the extent the Company or its designee receives proceeds of such sale that exceed the amount owed, the Company will pay such excess in cash to the applicable Participant as soon as reasonably practicable; (e) the Company and its designees are under no obligation to arrange for such sale at any particular price; and (f) in the event the proceeds of such sale are insufficient to satisfy the Participant's applicable obligation, the Participant may be required to pay immediately upon demand to the Company or its designee an amount in cash sufficient to satisfy any remaining portion of the Participant's obligation.

ARTICLE XI.
DEFINITIONS

As used in the Plan, the following words and phrases will have the following meanings:

11.1 "***Administrator***" means the Board or a Committee to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

11.2 "***Applicable Laws***" means the requirements relating to the administration of equity incentive plans under U.S. federal and state securities, tax and other applicable laws, rules and regulations, the applicable rules of any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws and rules of any foreign country or other jurisdiction where Awards are granted.

11.3 "***Award***" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units or Other Stock or Cash Based Awards.

11.4 "***Award Agreement***" means a written agreement evidencing an Award, which may be electronic, that contains such terms and conditions as the Administrator determines, consistent with and subject to the terms and conditions of the Plan.

11.5 "***Board***" means the Board of Directors of the Company.

11.6 "***Cause***" means (i) if a Participant is a party to a written employment or consulting agreement with the Company or any of its Subsidiaries or an Award Agreement in which the term "cause" is defined (a "***Relevant Agreement***"), "Cause" as defined in the Relevant Agreement, and (ii) if no Relevant Agreement exists, (A) the Administrator's determination that the Participant failed to substantially perform the Participant's duties (other than a failure resulting from the Participant's Disability); (B) the Administrator's determination that the Participant failed to carry out, or comply with any lawful and reasonable directive of the Board or the Participant's immediate supervisor; (C) the occurrence of any act or omission by the Participant that could reasonably be expected to result in (or has resulted in) the Participant's conviction, plea of no contest, plea of nolo contendere, or imposition of unadjudicated probation for any felony or indictable offense or crime involving moral turpitude; (D) the Participant's unlawful use (including being under the influence) or possession of illegal drugs on the premises of the Company or any of its Subsidiaries or while performing the Participant's duties and responsibilities for the Company or any of its Subsidiaries; or (E) the Participant's commission of an act of fraud, embezzlement, misappropriation, misconduct, or breach of fiduciary duty against the Company or any of its Subsidiaries.

11.7 "***Change in Control***" means and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission or a transaction or series of transactions that meets the requirements of clauses (i) and (ii) of subsection (c) below) whereby any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its Subsidiaries, an employee benefit plan maintained by the Company or any of its Subsidiaries or a "person" that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company's securities outstanding immediately after such acquisition; or

(b) During any period of two consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in subsections (a) or (c)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the Directors then still in office who either were Directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such person, the "***Successor Entity***")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) after which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this clause (ii) as beneficially owning 50% or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event with respect to any Award (or portion of any Award) that provides for the deferral of compensation that is subject to Section 409A, to the extent required to avoid the imposition of additional taxes under Section 409A, the transaction or event described in subsection (a), (b) or (c) with respect to such Award (or portion thereof) shall only constitute a Change in Control for purposes of the payment timing of such Award if such transaction also constitutes a "change in control event," as defined in Treasury Regulation Section 1.409A-3(i)(5).

The Administrator shall have full and final authority, which shall be exercised in its discretion, to determine conclusively whether a Change in Control has occurred pursuant to the above definition, the date of the occurrence of such Change in Control and any incidental matters relating thereto; provided that any exercise of authority in conjunction with a determination of whether a Change in Control is a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5) shall be consistent with such regulation.

11.8 "***Code***" means the Internal Revenue Code of 1986, as amended, and the regulations issued thereunder.

11.9 "***Committee***" means one or more committees or subcommittees of the Board, which may include one or more Company directors or executive officers, to the extent Applicable Laws permit. To the extent required to comply with the provisions of Rule 16b-3, it is intended that each member of the Committee will be, at the time the Committee takes any action with respect to an Award that is subject to Rule 16b-3, a "non-employee director" within the meaning of Rule 16b-3; however, a Committee member's failure to qualify as a "non-employee director" within the meaning of Rule 16b-3 will not invalidate any Award granted by the Committee that is otherwise validly granted under the Plan.

11.10 "***Common Stock***" means the common stock of the Company.

11.11 "***Company***" means Lyra Therapeutics, Inc., a Delaware corporation, or any successor.

11.12 "***Consultant***" means any person, including any adviser, engaged by the Company or its parent or Subsidiary to render services to such entity if the consultant or adviser: (i) renders bona fide services to the Company; (ii) renders services not in connection with the offer or sale of securities in a capital-raising transaction and does not directly or indirectly promote or maintain a market for the Company's securities; and (iii) is a natural person.

11.13 "***Designated Beneficiary***" means the beneficiary or beneficiaries the Participant designates, in a manner the Administrator determines, to receive amounts due or exercise the Participant's rights if the Participant dies or becomes incapacitated. Without a Participant's effective designation, "Designated Beneficiary" will mean the Participant's estate.

11.14 "***Director***" means a Board member.

11.15 "***Disability***" means a permanent and total disability under Section 22(e)(3) of the Code, as amended.

11.16 "***Dividend Equivalents***" means a right granted to a Participant under the Plan to receive the equivalent value (in cash or Shares) of dividends paid on Shares.

11.17 "***Employee***" means any employee of the Company or its Subsidiaries.

11.18 "***Equity Restructuring***" means a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other Company securities) or the share price of Common Stock (or other Company securities) and causes a change in the per share value of the Common Stock underlying outstanding Awards.

11.19 "***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

11.20 "***Fair Market Value***" means, as of any date, the value of Common Stock determined as follows: (i) if the Common Stock is listed on any established stock exchange, its Fair Market Value will be the closing sales price for such Common Stock as quoted on such exchange for such date, or if no sale occurred on such date, the last day preceding such date during which a sale occurred, as reported in The Wall Street Journal or another source the Administrator deems reliable; (ii) if the Common Stock is not traded on a stock exchange but is quoted on a national market or other quotation system, the closing sales price on such date, or if no sales occurred on such date, then on the last date preceding such date during which a sale occurred, as reported in The Wall Street Journal or another source the Administrator deems reliable; or (iii) without an established market for the Common Stock, the Administrator will determine the Fair Market Value in its discretion. Notwithstanding the foregoing, with respect to any Award granted on the pricing date of the Company's initial public offering, the Fair Market Value shall mean the initial public offering price of a Share as set forth in the Company's final prospectus relating to its initial public offering filed with the Securities and Exchange Commission.

11.21 "***Greater Than 10% Stockholder***" means an individual then owning (within the meaning of Section 424(d) of the Code) more than 10% of the total combined voting power of all classes of stock of the Company or its parent or subsidiary corporation, as defined in Section 424(e) and (f) of the Code, respectively.

11.22 "***Incentive Stock Option***" means an Option intended to qualify as an "incentive stock option" as defined in Section 422 of the Code.

11.23 "***Non-Qualified Stock Option***" means an Option not intended or not qualifying as an Incentive Stock Option.

11.24 "***Option***" means an option to purchase Shares.

11.25 "***Other Stock or Cash Based Awards***" means cash awards, awards of Shares, and other awards valued wholly or partially by referring to, or are otherwise based on, Shares or other property.

11.26 "***Participant***" means a Service Provider who has been granted an Award.

11.27 "***Performance Criteria***" mean the criteria (and adjustments) that the Administrator may select for an Award to establish performance goals for a performance period, which may include the following: net earnings or losses (either before or after one or more of interest, taxes, depreciation, amortization, and non-cash equity-based compensation expense); gross or net sales or revenue or sales or revenue growth; net income (either before or after taxes) or adjusted net income; profits (including but not limited to gross profits, net profits, profit growth, net operation profit or economic profit), profit return ratios or operating margin; budget or operating earnings (either before or after taxes or before or after allocation of corporate overhead and bonus); cash flow (including operating cash flow and free cash flow or cash flow return on capital); return on assets; return on capital or invested capital; cost of capital; return on stockholders' equity; total stockholder return; return on sales; costs, reductions in costs and cost control measures; expenses; working capital; earnings or loss per share; adjusted earnings or loss per share; price per share or dividends per share (or appreciation in or maintenance of such price or dividends); regulatory achievements or compliance; implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; market share; economic value or economic value added models; division, group or corporate financial goals; customer satisfaction/growth; customer service; employee satisfaction; recruitment and maintenance of personnel; human resources management; supervision of litigation and other legal matters; strategic partnerships and transactions; financial ratios (including those measuring liquidity, activity, profitability or leverage); debt levels or reductions; sales-related goals; financing and other capital raising transactions; cash on hand; acquisition activity; investment sourcing activity; and marketing initiatives, any of which may be measured in absolute terms or as compared to any incremental increase or decrease. Such performance goals also may be based solely by reference to the Company's performance or the performance of a Subsidiary, division, business segment or business unit of the Company or a Subsidiary, or based upon performance relative to performance of other companies or upon comparisons of any of the indicators of performance relative to performance of other companies. The Committee may provide for exclusion of the impact of an event or occurrence which the Committee determines should appropriately be excluded, including (a) restructurings, discontinued operations, extraordinary items, and other unusual, infrequently occurring or non-recurring charges or events, (b) asset write-downs, (c) litigation or claim judgments or settlements, (d) acquisitions or divestitures, (e)

reorganization or change in the corporate structure or capital structure of the Company, (f) an event either not directly related to the operations of the Company, Subsidiary, division, business segment or business unit or not within the reasonable control of management, (g) foreign exchange gains and losses, (h) a change in the fiscal year of the Company, (i) the refinancing or repurchase of bank loans or debt securities, (j) unbudgeted capital expenditures, (k) the issuance or repurchase of equity securities and other changes in the number of outstanding shares, (l) conversion of some or all of convertible securities to Common Stock, (m) any business interruption event (n) the cumulative effects of tax or accounting changes in accordance with U.S. generally accepted accounting principles, or (o) the effect of changes in other laws or regulatory rules affecting reported results.

11.28 "***Plan***" means this 2020 Incentive Award Plan.

11.29 "***Prior Plans***" means the Company's 2016 Equity Incentive Plan, 2005 Equity Incentive Plan and any prior equity incentive plans of the Company or its predecessor.

11.30 "***Prior Plan Award***" means an award outstanding under the Prior Plans as of the Plan's effective date in Section 10.3.

11.31 "***Public Trading Date***" means the first date upon which the Common Stock is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system, or, if earlier, the date on which the Company becomes a "publicly held corporation" for purposes of Treasury Regulation Section 1.162-27(c)(1).

11.32 "***Restricted Stock***" means Shares awarded to a Participant under Article VI subject to certain vesting conditions and other restrictions.

11.33 "***Restricted Stock Unit***" means an unfunded, unsecured right to receive, on the applicable settlement date, one Share or an amount in cash or other consideration determined by the Administrator to be of equal value as of such settlement date, subject to certain vesting conditions and other restrictions.

11.34 "***Rule 16b-3***" means Rule 16b-3 promulgated under the Exchange Act.

11.35 "***Section 409A***" means Section 409A of the Code and all regulations, guidance, compliance programs and other interpretative authority thereunder.

11.36 "***Securities Act***" means the Securities Act of 1933, as amended.

11.37 "***Service Provider***" means an Employee, Consultant or Director.

11.38 "***Shares***" means shares of Common Stock.

11.39 "***Stock Appreciation Right***" means a stock appreciation right granted under Article V.

11.40 "***Subsidiary***" means any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing at least 50% of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

11.41 "***Substitute Awards***" shall mean Awards granted or Shares issued by the Company in assumption of, or in substitution or exchange for, awards previously granted, or the right or obligation to make future awards, in each case by a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines.

11.42 "***Termination of Service***" means the date the Participant ceases to be a Service Provider.

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LYRA THERAPEUTICS, INC.
2020 INCENTIVE AWARD PLAN

STOCK OPTION GRANT NOTICE

Capitalized terms not specifically defined in this Stock Option Grant Notice (the "***Grant Notice***") have the meanings given to them in the 2020 Incentive Award Plan (as amended from time to time, the "***Plan***") of Lyra Therapeutics, Inc. (the "***Company***").

The Company has granted to the participant listed below ("***Participant***") the stock option described in this Grant Notice (the "***Option***"), subject to the terms and conditions of the Plan and the Stock Option Agreement attached as **Exhibit A** (the "***Agreement***"), both of which are incorporated into this Grant Notice by reference.

Participant:

Grant Date:

Exercise Price per Share:

Shares Subject to the Option:

Final Expiration Date:

Vesting Commencement Date:

Vesting Schedule:

Type of Option

By Participant's signature below, Participant agrees to be bound by the terms of this Grant Notice, the Plan and the Agreement. Participant has reviewed the Plan, this Grant Notice and the Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, this Grant Notice and the Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement.

LYRA THERAPEUTICS, INC.	**PARTICIPANT**
By: _____	_____
Name: _____	
Title: _____	

Exhibit A

STOCK OPTION AGREEMENT

Capitalized terms not specifically defined in this Agreement have the meanings specified in the Grant Notice or, if not defined in the Grant Notice, in the Plan.

ARTICLE I.
GENERAL

1.1 Grant of Option. The Company has granted to Participant the Option effective as of the grant date set forth in the Grant Notice (the "***Grant Date***").

1.2 Incorporation of Terms of Plan. The Option is subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan will control.

ARTICLE II.
PERIOD OF EXERCISABILITY

2.1 Commencement of Exercisability. The Option will vest and become exercisable according to the vesting schedule in the Grant Notice (the "***Vesting Schedule***") except that any fraction of a Share as to which the Option would be vested or exercisable will be accumulated and will vest and become exercisable only when a whole Share has accumulated. Notwithstanding anything in the Grant Notice, the Plan or this Agreement to the contrary, unless the Administrator otherwise determines, the Option will immediately expire and be forfeited as to any portion that is not vested and exercisable as of Participant's Termination of Service for any reason.

2.2 Duration of Exercisability. The Vesting Schedule is cumulative. Any portion of the Option which vests and becomes exercisable will remain vested and exercisable until the Option expires. The Option will be forfeited immediately upon its expiration.

2.3 Expiration of Option. The Option may not be exercised to any extent by anyone after, and will expire on, the first of the following to occur:

(a) The final expiration date in the Grant Notice;

(b) Except as the Administrator may otherwise approve, the expiration of three (3) months from the date of Participant's Termination of Service, unless Participant's Termination of Service is for Cause or by reason of Participant's death or Disability;

(c) Except as the Administrator may otherwise approve, the expiration of one (1) year from the date of Participant's Termination of Service by reason of Participant's death or Disability; and

(d) Except as the Administrator may otherwise approve, Participant's Termination of Service for Cause.

ARTICLE III.
EXERCISE OF OPTION

3.1 Person Eligible to Exercise. During Participant's lifetime, only Participant may exercise the Option. After Participant's death, any exercisable portion of the Option may, prior to the time the Option expires, be exercised by Participant's Designated Beneficiary as provided in the Plan.

3.2 Partial Exercise. Any exercisable portion of the Option or the entire Option, if then wholly exercisable, may be exercised, in whole or in part, according to the procedures in the Plan at any time prior to the time the Option or portion thereof expires, except that the Option may only be exercised for whole Shares.

3.3 Tax Withholding.

(a) The Company has the right and option, but not the obligation, to treat Participant's failure to provide timely payment in accordance with the Plan of any withholding tax arising in connection with the Option as Participant's election to satisfy all or any portion of the withholding tax by requesting the Company retain Shares otherwise issuable under the Option.

(b) Participant acknowledges that Participant is ultimately liable and responsible for all taxes owed in connection with the Option, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the Option. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or exercise of the Option or the subsequent sale of Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure the Option to reduce or eliminate Participant's tax liability.

ARTICLE IV.
OTHER PROVISIONS

4.1 Adjustments. Participant acknowledges that the Option is subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan.

4.2 Notices. Any notice to be given under the terms of this Agreement to the Company must be in writing and addressed to the Company in care of the Company's Secretary at the Company's principal office or the Secretary's then-current email address or facsimile number. Any notice to be given under the terms of this Agreement to Participant must be in writing and addressed to Participant (or, if Participant is then deceased, to the person entitled to exercise the Option) at Participant's last known mailing address, email address or facsimile number in the Company's personnel files. By a notice given pursuant to this Section, either party may designate a different address for notices to be given to that party. Any notice will be deemed duly given when actually received, when sent by email, when sent by certified mail (return receipt requested) and deposited with postage prepaid in a post office or branch post office regularly maintained by the United States Postal Service, when delivered by a nationally recognized express shipping company or upon receipt of a facsimile transmission confirmation.

4.3 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

4.4 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws and, to the extent Applicable Laws permit, will be deemed amended as necessary to conform to Applicable Laws.

4.5 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement will inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in the Plan, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

4.6 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Grant Notice, this Agreement and the Option will be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3) that are requirements for the application of such exemptive rule. To the extent Applicable Laws permit, this Agreement will be deemed amended as necessary to conform to such applicable exemptive rule.

4.7 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

4.8 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held illegal or invalid, the provision will be severable from, and the illegality or invalidity of the provision will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

4.9 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and may not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant will have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the Option, and rights no greater than the right to receive the Shares as a general unsecured creditor with respect to the Option, as and when exercised pursuant to the terms hereof.

4.10 Not a Contract of Employment. Nothing in the Plan, the Grant Notice or this Agreement confers upon Participant any right to continue in the employ or service of the Company or any Subsidiary or interferes with or restricts in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

4.11 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which will be deemed an original and all of which together will constitute one instrument.

4.12 Incentive Stock Options. If the Option is designated as an Incentive Stock Option:

(a) Participant acknowledges that to the extent the aggregate fair market value of shares (determined as of the time the option with respect to the shares is granted) with respect to which stock options intended to qualify as "incentive stock options" under Section 422 of the Code, including the Option, are exercisable for the first time by Participant during any calendar year exceeds $100,000 or if for any other reason such stock options do not qualify or cease to qualify for treatment as "incentive stock options" under Section 422 of the Code, such stock options (including the Option) will be treated as non-qualified stock options. Participant further acknowledges that the rule set forth in the preceding

sentence will be applied by taking the Option and other stock options into account in the order in which they were granted, as determined under Section 422(d) of the Code. Participant acknowledges that amendments or modifications made to the Option pursuant to the Plan that would cause the Option to become a Non-Qualified Stock Option will not materially or adversely affect Participant's rights under the Option, and that any such amendment or modification shall not require Participant's consent. Participant also acknowledges that if the Option is exercised more than three (3) months after Participant's Termination of Service as an Employee, other than by reason of death or disability, the Option will be taxed as a Non-Qualified Stock Option.

(b) Participant will give prompt written notice to the Company of any disposition or other transfer of any Shares acquired under this Agreement if such disposition or other transfer is made (a) within two (2) years from the Grant Date or (b) within one (1) year after the transfer of such Shares to Participant. Such notice will specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by Participant in such disposition or other transfer.

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LYRA THERAPEUTICS, INC.
2020 INCENTIVE AWARD PLAN

RESTRICTED STOCK GRANT NOTICE

Capitalized terms not specifically defined in this Restricted Stock Grant Notice (the "***Grant Notice***") have the meanings given to them in the 2020 Incentive Award Plan (as amended from time to time, the "***Plan***") of Lyra Therapeutics, Inc. (the "***Company***").

The Company has granted to the participant listed below ("***Participant***") the shares of Restricted Stock described in this Grant Notice (the "***Restricted Shares***"), subject to the terms and conditions of the Plan and the Restricted Stock Agreement attached as **Exhibit A** (the "***Agreement***"), both of which are incorporated into this Grant Notice by reference.

Participant:

Grant Date:

Number of Restricted Shares:

Vesting Commencement Date:

Vesting Schedule:

By Participant's signature below, Participant agrees to be bound by the terms of this Grant Notice, the Plan and the Agreement. Participant has reviewed the Plan, this Grant Notice and the Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, this Grant Notice and the Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement.

LYRA THERAPEUTICS, INC.	**PARTICIPANT**
By: _____	_____
Name: _____	
Title: _____	

Exhibit A

RESTRICTED STOCK AGREEMENT

Capitalized terms not specifically defined in this Agreement have the meanings specified in the Grant Notice or, if not defined in the Grant Notice, in the Plan.

ARTICLE I.
GENERAL

1.1 Issuance of Restricted Shares. The Company will issue the Restricted Shares to the Participant effective as of the grant date set forth in the Grant Notice and will cause (a) a stock certificate or certificates representing the Restricted Shares to be registered in Participant's name or (b) the Restricted Shares to be held in book-entry form. If a stock certificate is issued, the certificate will be delivered to, and held in accordance with this Agreement by, the Company or its authorized representatives and will bear the restrictive legends required by this Agreement. If the Restricted Shares are held in book-entry form, then the book-entry will indicate that the Restricted Shares are subject to the restrictions of this Agreement.

1.2 Incorporation of Terms of Plan. The Restricted Shares are subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan will control.

ARTICLE II.
VESTING, FORFEITURE AND ESCROW

2.1 Vesting. The Restricted Shares will become vested Shares (the "***Vested Shares***") according to the vesting schedule in the Grant Notice except that any fraction of a Share that would otherwise become a Vested Share will be accumulated and will become a Vested Share only when a whole Vested Share has accumulated.

2.2 Forfeiture. In the event of Participant's Termination of Service for any reason, Participant will immediately and automatically forfeit to the Company any Shares that are not Vested Shares (the "***Unvested Shares***") at the time of Participant's Termination of Service, except as otherwise determined by the Administrator or provided in a binding written agreement between Participant and the Company. Upon forfeiture of Unvested Shares, the Company will become the legal and beneficial owner of the Unvested Shares and all related interests and Participant will have no further rights with respect to the Unvested Shares.

2.3 Escrow.

(a) Unvested Shares will be held by the Company or its authorized representatives until (i) they are forfeited, (ii) they become Vested Shares or (iii) this Agreement is no longer in effect. By accepting this Award, Participant appoints the Company and its authorized representatives as Participant's attorney(s)-in-fact to take all actions necessary to effect any transfer of forfeited Unvested Shares (and Retained Distributions (as defined below), if any, paid on such forfeited Unvested Shares) to the Company as may be required pursuant to the Plan or this Agreement and to execute such representations or other documents or assurances as the Company or such representatives deem necessary or advisable in connection with any such transfer. The Company, or its authorized representative, will not be liable for any good faith act or omission with respect to the holding in escrow or transfer of the Restricted Shares.

(b) All cash dividends and other distributions made or declared with respect to Unvested Shares ("***Retained Distributions***") will be held by the Company until the time (if ever) when the Unvested Shares to which such Retained Distributions relate become Vested Shares. The Company will establish a separate Retained Distribution bookkeeping account ("***Retained Distribution Account***") for each Unvested Share with respect to which Retained Distributions have been made or declared in cash and credit the Retained Distribution Account (without interest) on the date of payment with the amount of such cash made or declared with respect to the Unvested Share. Retained Distributions (including any Retained Distribution Account balance) will immediately and automatically be forfeited upon forfeiture of the Unvested Share with respect to which the Retained Distributions were paid or declared.

(c) As soon as reasonably practicable following the date on which an Unvested Share becomes a Vested Share, the Company will (i) cause the certificate (or a new certificate without the legend required by this Agreement, if Participant so requests) representing the Share to be delivered to Participant or, if the Share is held in book-entry form, cause the notations indicating the Share is subject to the restrictions of this Agreement to be removed and (ii) pay to Participant the Retained Distributions relating to the Share.

2.4 Rights as Stockholder. Except as otherwise provided in this Agreement or the Plan, upon issuance of the Restricted Shares by the Company, Participant will have all the rights of a stockholder with respect to the Restricted Shares, including the right to vote the Restricted Shares and to receive dividends or other distributions paid or made with respect to the Restricted Shares.

ARTICLE III.
TAXATION AND TAX WITHHOLDING

3.1 Representation. Participant represents to the Company that Participant has reviewed with Participant's own tax advisors the tax consequences of the Restricted Shares and the transactions contemplated by the Grant Notice and this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents.

3.2 Section 83(b) Election. If Participant makes an election under Section 83(b) of the Code with respect to the Restricted Shares, Participant will deliver a copy of the election to the Company promptly after filing the election with the Internal Revenue Service.

3.3 Tax Withholding.

(a) The Company has the right and option, but not the obligation, to treat Participant's failure to provide timely payment in accordance with the Plan of any withholding tax arising in connection with the Restricted Shares as Participant's election to satisfy all or any portion of the withholding tax by requesting the Company retain Shares otherwise deliverable under the Award.

(b) Participant acknowledges that Participant is ultimately liable and responsible for all taxes owed in connection with the Restricted Shares, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the Restricted Shares. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or payment of the Restricted Shares or the subsequent sale of the Restricted Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure this Award to reduce or eliminate Participant's tax liability.

ARTICLE IV.
RESTRICTIVE LEGENDS AND TRANSFERABILITY

4.1 Legends. Any certificate representing a Restricted Share will bear the following legend until the Restricted Share becomes a Vested Share:

> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO FORFEITURE IN FAVOR OF THE COMPANY AND MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF A RESTRICTED STOCK AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

4.2 Transferability. The Restricted Shares and any Retained Distributions are subject to the restrictions on transfer in the Plan and may not be sold, assigned or transferred in any manner unless and until they become Vested Shares. Any attempted transfer or disposition of Unvested Shares or related Retained Distributions prior to the time the Unvested Shares become Vested Shares will be null and void. The Company will not be required to (a) transfer on its books any Restricted Share that has been sold or otherwise transferred in violation of this Agreement or (b) treat as owner of such Restricted Share or accord the right to vote or pay dividends to any purchaser or other transferee to whom such Restricted Share has been so transferred. The Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, or make appropriate notations to the same effect in its records.

ARTICLE V.
OTHER PROVISIONS

5.1 Adjustments. Participant acknowledges that the Restricted Shares are subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan.

5.2 Notices. Any notice to be given under the terms of this Agreement to the Company must be in writing and addressed to the Company in care of the Company's Secretary at the Company's principal office or the Secretary's then-current email address or facsimile number. Any notice to be given under the terms of this Agreement to Participant must be in writing and addressed to Participant at Participant's last known mailing address, email address or facsimile number in the Company's personnel files. By a notice given pursuant to this Section, either party may designate a different address for notices to be given to that party. Any notice will be deemed duly given when actually received, when sent by email, when sent by certified mail (return receipt requested) and deposited with postage prepaid in a post office or branch post office regularly maintained by the United States Postal Service, when delivered by a nationally recognized express shipping company or upon receipt of a facsimile transmission confirmation.

5.3 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

5.4 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws and, to the extent Applicable Laws permit, will be deemed amended as necessary to conform to Applicable Laws.

5.5 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement will inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in this Agreement or the Plan, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

5.6 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Grant Notice, this Agreement and the Restricted Shares will be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3) that are requirements for the application of such exemptive rule. To the extent Applicable Laws permit, this Agreement will be deemed amended as necessary to conform to such applicable exemptive rule.

5.7 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

5.8 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held illegal or invalid, the provision will be severable from, and the illegality or invalidity of the provision will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

5.9 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and may not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant will have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the Award.

5.10 Not a Contract of Employment. Nothing in the Plan, the Grant Notice or this Agreement confers upon Participant any right to continue in the employ or service of the Company or any Subsidiary or interferes with or restricts in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

5.11 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which will be deemed an original and all of which together will constitute one instrument.

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LYRA THERAPEUTICS, INC.
2020 INCENTIVE AWARD PLAN

RESTRICTED STOCK UNIT GRANT NOTICE

Capitalized terms not specifically defined in this Restricted Stock Unit Grant Notice (the "***Grant Notice***") have the meanings given to them in the 2020 Incentive Award Plan (as amended from time to time, the "***Plan***") of Lyra Therapeutics, Inc. (the "***Company***").

The Company has granted to the participant listed below ("***Participant***") the Restricted Stock Units described in this Grant Notice (the "***RSUs***"), subject to the terms and conditions of the Plan and the Restricted Stock Unit Agreement attached as **Exhibit A** (the "***Agreement***"), both of which are incorporated into this Grant Notice by reference.

Participant:

Grant Date:

Number of RSUs:

Vesting Commencement Date:

Vesting Schedule:

By Participant's signature below, Participant agrees to be bound by the terms of this Grant Notice, the Plan and the Agreement. Participant has reviewed the Plan, this Grant Notice and the Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, this Grant Notice and the Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement.

LYRA THERAPEUTICS, INC.	**PARTICIPANT**
By: _____	_____
Name: _____	
Title: _____	

Exhibit A

RESTRICTED STOCK UNIT AGREEMENT

Capitalized terms not specifically defined in this Agreement have the meanings specified in the Grant Notice or, if not defined in the Grant Notice, in the Plan.

ARTICLE I.
GENERAL

1.1 Award of RSUs and Dividend Equivalents.

(a) The Company has granted the RSUs to Participant effective as of the grant date set forth in the Grant Notice (the "***Grant Date***"). Each RSU represents the right to receive one Share or, at the option of the Company, an amount of cash, in either case, as set forth in this Agreement. Participant will have no right to the distribution of any Shares or payment of any cash until the time (if ever) the RSUs have vested.

(b) The Company hereby grants to Participant, with respect to each RSU, a Dividend Equivalent for ordinary cash dividends paid to substantially all holders of outstanding Shares with a record date after the Grant Date and prior to the date the applicable RSU is settled, forfeited or otherwise expires. Each Dividend Equivalent entitles Participant to receive the equivalent value of any such ordinary cash dividends paid on a single Share. The Company will establish a separate Dividend Equivalent bookkeeping account (a "***Dividend Equivalent Account***") for each Dividend Equivalent and credit the Dividend Equivalent Account (without interest) on the applicable dividend payment date with the amount of any such cash paid.

1.2 Incorporation of Terms of Plan. The RSUs are subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan will control.

1.3 Unsecured Promise. The RSUs and Dividend Equivalents will at all times prior to settlement represent an unsecured Company obligation payable only from the Company's general assets.

ARTICLE II.
VESTING; FORFEITURE AND SETTLEMENT

2.1 Vesting; Forfeiture. The RSUs will vest according to the vesting schedule in the Grant Notice except that any fraction of an RSU that would otherwise be vested will be accumulated and will vest only when a whole RSU has accumulated. In the event of Participant's Termination of Service for any reason, all unvested RSUs will immediately and automatically be cancelled and forfeited, except as otherwise determined by the Administrator or provided in a binding written agreement between Participant and the Company. Dividend Equivalents (including any Dividend Equivalent Account balance) will vest or be forfeited, as applicable, upon the vesting or forfeiture of the RSU with respect to which the Dividend Equivalent (including the Dividend Equivalent Account) relates.

2.2 Settlement.

(a) RSUs and Dividend Equivalents (including any Dividend Equivalent Account balance) will be paid in Shares or cash at the Company's option as soon as administratively practicable after the vesting of the applicable RSU, but in no event more than sixty (60) days after the RSU's vesting date. Notwithstanding the foregoing, the Company may delay any payment under this Agreement that the Company reasonably determines would violate Applicable Law until the earliest date the Company reasonably determines the making of the payment will not cause such a violation (in accordance with Treasury Regulation Section 1.409A-2(b)(7)(ii)), provided the Company reasonably believes the delay will not result in the imposition of excise taxes under Section 409A.

(b) If an RSU is paid in cash, the amount of cash paid with respect to the RSU will equal the Fair Market Value of a Share on the day immediately preceding the payment date. If a Dividend Equivalent is paid in Shares, the number of Shares paid with respect to the Dividend Equivalent will equal the quotient, rounded down to the nearest whole Share, of the Dividend Equivalent Account balance divided by the Fair Market Value of a Share on the day immediately preceding the payment date.

ARTICLE III.
TAXATION AND TAX WITHHOLDING

3.1 Representation. Participant represents to the Company that Participant has reviewed with Participant's own tax advisors the tax consequences of this Award and the transactions contemplated by the Grant Notice and this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents.

3.2 Tax Withholding.

(a) The Company has the right and option, but not the obligation, to treat Participant's failure to provide timely payment in accordance with the Plan of any withholding tax arising in connection with the RSUs or Dividend Equivalents as Participant's election to satisfy all or any portion of the withholding tax by requesting the Company retain Shares otherwise issuable under the Award.

(b) Participant acknowledges that Participant is ultimately liable and responsible for all taxes owed in connection with the RSUs and the Dividend Equivalents, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the RSUs or Dividend Equivalents. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or payment of the RSUs or the Dividend Equivalents or the subsequent sale of Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure the RSUs or Dividend Equivalents to reduce or eliminate Participant's tax liability.

ARTICLE IV.
OTHER PROVISIONS

4.1 Adjustments. Participant acknowledges that the RSUs, the Shares subject to the RSUs and the Dividend Equivalents are subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan.

4.2 Notices. Any notice to be given under the terms of this Agreement to the Company must be in writing and addressed to the Company in care of the Company's Secretary at the Company's principal office or the Secretary's then-current email address or facsimile number. Any notice to be given under the terms of this Agreement to Participant must be in writing and addressed to Participant at Participant's last known mailing address, email address or facsimile number in the Company's personnel files. By a notice given pursuant to this Section, either party may designate a different address for notices to be given to that party. Any notice will be deemed duly given when actually received, when sent by email, when sent by certified mail (return receipt requested) and deposited with postage prepaid in a post office or branch post office regularly maintained by the United States Postal Service, when delivered by a nationally recognized express shipping company or upon receipt of a facsimile transmission confirmation.

4.3 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

4.4 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws and, to the extent Applicable Laws permit, will be deemed amended as necessary to conform to Applicable Laws.

4.5 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement will inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in the Plan, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

4.6 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Grant Notice, this Agreement, the RSUs and the Dividend Equivalents will be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3) that are requirements for the application of such exemptive rule. To the extent Applicable Laws permit, this Agreement will be deemed amended as necessary to conform to such applicable exemptive rule.

4.7 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

4.8 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held illegal or invalid, the provision will be severable from, and the illegality or invalidity of the provision will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

4.9 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and may not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant will have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the RSUs and Dividend Equivalents, and rights no greater than the right to receive cash or the Shares as a general unsecured creditor with respect to the RSUs and Dividend Equivalents, as and when settled pursuant to the terms of this Agreement.

4.10 Not a Contract of Employment. Nothing in the Plan, the Grant Notice or this Agreement confers upon Participant any right to continue in the employ or service of the Company or any Subsidiary or interferes with or restricts in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

4.11 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which will be deemed an original and all of which together will constitute one instrument.

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LYRA THERAPEUTICS, INC.

NON-EMPLOYEE DIRECTOR COMPENSATION PROGRAM

Non-employee members of the board of directors (the "***Board***") of Lyra Therapeutics, Inc. (the "***Company***") shall receive cash and equity compensation as set forth in this Non-Employee Director Compensation Program (this "***Program***"). The cash and equity compensation described in this Program shall be paid or be made, as applicable, automatically and without further action of the Board, to each member of the Board who is not an employee of the Company or any parent or subsidiary of the Company (each, a "***Non-Employee Director***") who is entitled to receive such cash or equity compensation, unless such Non-Employee Director declines the receipt of such cash or equity compensation by written notice to the Company. This Program shall remain in effect until it is revised or rescinded by further action of the Board. This Program may be amended, modified or terminated by the Board at any time in its sole discretion. The terms and conditions of this Program shall supersede any prior cash and/or equity compensation arrangements for service as a member of the Board between the Company and any of its Non-Employee Directors. This Program shall become effective on the date of the effectiveness of the Company's Registration Statement on Form S-1 relating to the initial public offering of common stock (the "***Effective Date***").

I. CASH COMPENSATION

A. Annual Retainers. Each Non-Employee Director shall receive an annual retainer of $40,000 for service on the Board (the "***Annual Retainer***").

B. Additional Annual Retainers. In addition, each Non-Employee Director shall receive the following annual retainers (each, a "***Committee Member Retainer***"):

1. *Chairman of the Board or Lead Independent Director*. A Non-Employee Director serving as Chairman of the Board or Lead Independent Director shall receive an additional annual retainer of $25,000 for such service.

2. *Audit Committee*. A Non-Employee Director serving as Chairperson of the Audit Committee shall receive an additional annual retainer of $20,000 for such service. A Non-Employee Director serving as a member other than the Chairperson of the Audit Committee shall receive an additional annual retainer of $7,500 for such service.

3. *Compensation Committee*. A Non-Employee Director serving as Chairperson of the Compensation Committee shall receive an additional annual retainer of $15,000 for such service. A Non-Employee Director serving as a member other than the Chairperson of the Compensation Committee shall receive an additional annual retainer of $5,000 for such service.

4. *Nominating and Corporate Governance Committee*. A Non-Employee Director serving as Chairperson of the Nominating and Corporate Governance Committee shall receive an additional annual retainer of $8,000 for such service. A Non-Employee Director serving as a member other than the Chairperson of the Nominating and Corporate Governance Committee shall receive an additional annual retainer of $4,000 for such service.

C. Payment of Retainers. The Annual Retainer and Committee Member Retainer shall be earned on a quarterly basis based on a calendar quarter and shall be paid in cash by the Company in arrears not later than the fifteenth day following the end of each calendar quarter. In the event a Non-Employee Director does not serve as a Non-Employee Director, or in the applicable positions described in Section I(B), for an entire calendar quarter, the retainer paid to such Non-Employee Director shall be prorated for the portion of such calendar quarter actually served as a Non-Employee Director, or in such position, as applicable.

II. EQUITY COMPENSATION

Non-Employee Directors shall be granted the equity awards described below. The awards described below shall be granted under and shall be subject to the terms and provisions of the Company's 2020 Incentive Award Plan or any other applicable Company equity incentive plan then-maintained by the Company (the "***Equity Plan***") and shall be granted subject to award agreements, including attached exhibits, in substantially the form previously approved by the Board. All applicable terms of the Equity Plan apply to this Program as if fully set forth herein, and all grants of stock options hereby are subject in all respects to the terms of the Equity Plan and the applicable award agreement. For the avoidance of doubt, the share numbers in Sections II(A) and II(B) shall be subject to adjustment as provided in the Equity Plan, and in connection with any stock dividend, stock split, reverse stock split or other similar event affecting the Company's common stock that is effected prior to the Effective Date.

A. Initial Awards. Each Non-Employee Director who is initially elected or appointed to the Board after the Effective Date shall receive an option to purchase 14,500 shares of the Company's common stock on the date of such initial election or appointment. The awards described in this Section II(A) shall be referred to as "***Initial Awards***." No Non-Employee Director shall be granted more than one Initial Award.

B. Subsequent Awards. A Non-Employee Director who (i) has been serving as a Non-Employee Director on the Board for at least six months as of the date of any annual meeting of the Company's stockholders after the Effective Date and (ii) will continue to serve as a Non-Employee Director immediately following such meeting, shall be automatically granted an option to purchase 7,250 shares of the Company's common stock on the date of such annual meeting. The awards described in this Section II(B) shall be referred to as "***Subsequent Awards***." For the avoidance of doubt, a Non-Employee Director elected for the first time to the Board at an annual meeting of the Company's stockholders shall only receive an Initial Award in connection with such election, and shall not receive any Subsequent Award on the date of such meeting as well.

C. Termination of Employment of Employee Directors. Members of the Board who are employees of the Company or any parent or subsidiary of the Company who subsequently terminate their employment with the Company and any parent or subsidiary of the Company and remain on the Board will not receive an Initial Award pursuant to Section II(A) above, but to the extent that they are otherwise entitled, will receive, after termination of employment with the Company and any parent or subsidiary of the Company, Subsequent Awards as described in Section II(B) above.

D. Terms of Awards Granted to Non-Employee Directors

1. *Exercise Price*. The per share exercise price of each option granted to a Non-Employee Director shall equal the Fair Market Value (as defined in the Equity Plan) of a share of the Company's common stock on the date the option is granted.

2. *Vesting*. Each Initial Award shall vest and become exercisable in thirty-six (36) substantially equal monthly installments following the date of grant, such that the Initial Award shall be fully vested on the third anniversary of the date of grant, subject to the Non-Employee Director continuing in service as a Non-Employee Director through each such vesting date. Each Subsequent Award shall vest and become exercisable on the earlier of the first anniversary of the date of grant or the day immediately prior to the date of the next annual meeting of the Company's stockholders occurring after the date of grant, in either case subject to the Non-Employee Director continuing in service on the Board as a Non-Employee Director through each such vesting date. Unless the Board otherwise determines, any portion of an Initial Award or Subsequent Award which is unvested or unexercisable at the time of a Non-Employee Director's termination of service on the Board as a Non-Employee Director shall be immediately forfeited upon such termination of service and shall not thereafter become vested and exercisable. All of a Non-Employee Director's Initial Awards and Subsequent Awards shall vest in full immediately prior to the occurrence of a Change in Control (as defined in the Equity Plan), to the extent outstanding at such time.

3. *Term*. The maximum term of each stock option granted to a Non-Employee Director hereunder shall be ten (10) years from the date the option is granted.

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LYRA THERAPEUTICS, INC.
2020 EMPLOYEE STOCK PURCHASE PLAN

ARTICLE I.
PURPOSE

The purposes of this Lyra Therapeutics, Inc. 2020 Employee Stock Purchase Plan (as it may be amended or restated from time to time, the "***Plan***") are to assist Eligible Employees of Lyra Therapeutics, Inc., a Delaware corporation (the "***Company***"), and its Designated Subsidiaries in acquiring a stock ownership interest in the Company pursuant to a plan which is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423(b) of the Code, and to help Eligible Employees provide for their future security and to encourage them to remain in the employment of the Company and its Designated Subsidiaries.

ARTICLE II.
DEFINITIONS AND CONSTRUCTION

Wherever the following terms are used in the Plan they shall have the meanings specified below, unless the context clearly indicates otherwise. The singular pronoun shall include the plural where the context so indicates. Masculine, feminine and neuter pronouns are used interchangeably and each comprehends the others.

2.1 "***Administrator***" shall mean the entity that conducts the general administration of the Plan as provided in Article XI. The term "Administrator" shall refer to the Committee unless the Board has assumed the authority for administration of the Plan as provided in Article XI.

2.2 "***Applicable Law***" shall mean the requirements relating to the administration of equity incentive plans under U.S. federal and state securities, tax and other applicable laws, rules and regulations, the applicable rules of any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws and rules of any foreign country or other jurisdiction where rights under this Plan are granted.

2.3 "***Board***" shall mean the Board of Directors of the Company.

2.4 "***Change in Control***" shall mean and include each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission or a transaction or series of transactions that meets the requirements of clauses (i) and (ii) of subsection (c) below) whereby any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its Subsidiaries, an employee benefit plan maintained by the Company or any of its Subsidiaries or a "person" that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company's securities outstanding immediately after such acquisition; or

(b) During any period of two consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new director(s) (other than a director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in subsections (a) or (c)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such person, the "***Successor Entity***")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) after which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this clause (ii) as beneficially owning 50% or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction.

The Administrator shall have full and final authority, which shall be exercised in its discretion, to determine conclusively whether a Change in Control has occurred pursuant to the above definition, the date of the occurrence of such Change in Control and any incidental matters relating thereto.

2.5 "***Code***" shall mean the Internal Revenue Code of 1986, as amended, and the regulations issued thereunder.

2.6 "***Common Stock***" shall mean the common stock of the Company.

2.7 "***Company***" shall mean Lyra Therapeutics, Inc., a Delaware corporation, or any successor.

2.8 "***Compensation***" of an Eligible Employee shall mean the gross base compensation received by such Eligible Employee as compensation for services to the Company or any Designated Subsidiary, including overtime payments and excluding sales commissions, incentive compensation, bonuses, expense reimbursements, fringe benefits and other special payments.

2.9 "***Designated Subsidiary***" shall mean any Subsidiary designated by the Administrator in accordance with Section 11.3(b).

2.10 "***Effective Date***" shall mean the day prior to the Public Trading Date.

2.11 "***Eligible Employee***" shall mean an Employee who does not, immediately after any rights under this Plan are granted, own (directly or through attribution) stock possessing 5% or more of the total combined voting power or value of all classes of Common Stock and other stock of the Company, a Parent or a Subsidiary (as determined under Section 423(b)(3) of the Code). For purposes of the

foregoing, the rules of Section 424(d) of the Code with regard to the attribution of stock ownership shall apply in determining the stock ownership of an individual, and stock that an Employee may purchase under outstanding options shall be treated as stock owned by the Employee; provided, however, that the Administrator may provide in an Offering Document that an Employee shall not be eligible to participate in an Offering Period if: (i) such Employee is a highly compensated employee within the meaning of Section 423(b)(4)(D) of the Code; (ii) such Employee has not met a service requirement designated by the Administrator pursuant to Section 423(b)(4)(A) of the Code (which service requirement may not exceed two years); (iii) such Employee's customary employment is for twenty hours per week or less; (iv) such Employee's customary employment is for less than five months in any calendar year; and/or (v) such Employee is a citizen or resident of a foreign jurisdiction and the grant of a right to purchase Common Stock under the Plan to such Employee would be prohibited under the laws of such foreign jurisdiction or the grant of a right to purchase Common Stock under the Plan to such Employee in compliance with the laws of such foreign jurisdiction would cause the Plan to violate the requirements of Section 423 of the Code, as determined by the Administrator in its sole discretion; provided, further, that any exclusion in clauses (i), (ii), (iii), (iv) or (v) shall be applied in an identical manner under each Offering Period to all Employees, in accordance with Treasury Regulation Section 1.423-2(e).

2.12 "***Employee***" shall mean any officer or other employee (as defined in accordance with Section 3401(c) of the Code) of the Company or any Designated Subsidiary. "Employee" shall not include any director of the Company or a Designated Subsidiary who does not render services to the Company or a Designated Subsidiary as an employee within the meaning of Section 3401(c) of the Code. For purposes of the Plan, the employment relationship shall be treated as continuing intact while the individual is on sick leave or other leave of absence approved by the Company or Designated Subsidiary and meeting the requirements of Treasury Regulation Section 1.421-1(h)(2). Where the period of leave exceeds three (3) months and the individual's right to reemployment is not guaranteed either by statute or by contract, the employment relationship shall be deemed to have terminated on the first day immediately following such three (3)-month period.

2.13 "***Enrollment Date***" shall mean the first Trading Day of each Offering Period.

2.14 "***Exchange Act***" shall mean the Securities Exchange Act of 1934, as amended.

2.15 "***Fair Market Value***" means, as of any date, the value of Common Stock determined as follows: (i) if the Common Stock is listed on any established stock exchange, its Fair Market Value will be the closing sales price for such Common Stock as quoted on such exchange for such date, or if no sale occurred on such date, the last day preceding such date during which a sale occurred, as reported in The Wall Street Journal or another source the Administrator deems reliable; (ii) if the Common Stock is not traded on a stock exchange but is quoted on a national market or other quotation system, the closing sales price on such date, or if no sales occurred on such date, then on the last date preceding such date during which a sale occurred, as reported in The Wall Street Journal or another source the Administrator deems reliable; or (iii) without an established market for the Common Stock, the Administrator will determine the Fair Market Value in its discretion.

2.16 "***Offering Document***" shall have the meaning given to such term in Section 4.1.

2.17 "***Offering Period***" shall have the meaning given to such term in Section 4.1.

2.18 "***Parent***" shall mean any corporation, other than the Company, in an unbroken chain of corporations ending with the Company if, at the time of the determination, each of the corporations other than the Company owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

2.19 "***Participant***" shall mean any Eligible Employee who has executed a subscription agreement and been granted rights to purchase Common Stock pursuant to the Plan.

2.20 "***Plan***" shall mean this 2020 Employee Stock Purchase Plan.

2.21 "***Public Trading Date***" shall mean the first date upon which the Common Stock is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system, or, if earlier, the date on which the Company becomes a "publicly held corporation" for purposes of Treasury Regulation Section 1.162-27(c)(1).

2.22 "***Purchase Date***" shall mean the last Trading Day of each Offering Period.

2.23 "***Purchase Price***" shall mean the purchase price designated by the Administrator in the applicable Offering Document (which purchase price shall not be less than 85% of the Fair Market Value of a Share on the Enrollment Date or on the Purchase Date, whichever is lower); provided, however, that, in the event no purchase price is designated by the Administrator in the applicable Offering Document, the purchase price for the Offering Periods covered by such Offering Document shall be 85% of the Fair Market Value of a Share on the Enrollment Date or on the Purchase Date, whichever is lower; provided, further, that the Purchase Price may be adjusted by the Administrator pursuant to Article VIII and shall not be less than the par value of a Share.

2.24 "***Securities Act***" shall mean the Securities Act of 1933, as amended.

2.25 "***Share***" shall mean a share of Common Stock.

2.26 "***Subsidiary***" shall mean any corporation, other than the Company, in an unbroken chain of corporations beginning with the Company if, at the time of the determination, each of the corporations other than the last corporation in an unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain; provided, however, that a limited liability company or partnership may be treated as a Subsidiary to the extent either (a) such entity is treated as a disregarded entity under Treasury Regulation Section 301.7701-3(a) by reason of the Company or any other Subsidiary that is a corporation being the sole owner of such entity, or (b) such entity elects to be classified as a corporation under Treasury Regulation Section 301.7701-3(a) and such entity would otherwise qualify as a Subsidiary.

2.27 "***Trading Day***" shall mean a day on which national stock exchanges in the United States are open for trading.

ARTICLE III.
SHARES SUBJECT TO THE PLAN

3.1 Number of Shares. Subject to Article VIII, the aggregate number of Shares that may be issued pursuant to rights granted under the Plan shall be 150,000 Shares. In addition to the foregoing, subject to Article VIII, on the first day of each calendar year beginning on January 1, 2021 and ending on and including January 1, 2030, the number of Shares available for issuance under the Plan shall be increased by that number of Shares equal to the lesser of (a) 0.5% of the Shares outstanding on the final day of the immediately preceding calendar year and (b) such smaller number of Shares as determined by the Board. If any right granted under the Plan shall for any reason terminate without having been exercised, the Common Stock not purchased under such right shall again become available for issuance under the Plan. Notwithstanding anything in this Section 3.1 to the contrary, the number of Shares that may be issued or transferred pursuant to the rights granted under the Plan shall not exceed an aggregate of 987,500 Shares, subject to Article VIII.

3.2 Stock Distributed. Any Common Stock distributed pursuant to the Plan may consist, in whole or in part, of authorized and unissued Common Stock, treasury stock or Common Stock purchased on the open market.

ARTICLE IV.
OFFERING PERIODS; OFFERING DOCUMENTS; PURCHASE DATES

4.1 Offering Periods. The Administrator may from time to time grant or provide for the grant of rights to purchase Common Stock under the Plan to Eligible Employees during one or more periods (each, an "***Offering Period***") selected by the Administrator. The terms and conditions applicable to each Offering Period shall be set forth in an "***Offering Document***" adopted by the Administrator, which Offering Document shall be in such form and shall contain such terms and conditions as the Administrator shall deem appropriate and shall be incorporated by reference into and made part of the Plan and shall be attached hereto as part of the Plan. The provisions of separate Offering Periods under the Plan need not be identical.

4.2 Offering Documents. Each Offering Document with respect to an Offering Period shall specify (through incorporation of the provisions of this Plan by reference or otherwise):

(a) the length of the Offering Period, which period shall not exceed twenty-seven months;

(b) the maximum number of Shares that may be purchased by any Eligible Employee during such Offering Period, which, in the absence of a contrary designation by the Administrator, shall be 25,000 Shares; and

(c) such other provisions as the Administrator determines are appropriate, subject to the Plan.

ARTICLE V.
ELIGIBILITY AND PARTICIPATION

5.1 Eligibility. Any Eligible Employee who shall be employed by the Company or a Designated Subsidiary on a given Enrollment Date for an Offering Period shall be eligible to participate in the Plan during such Offering Period, subject to the requirements of this Article V and the limitations imposed by Section 423(b) of the Code.

5.2 Enrollment in Plan.

(a) Except as otherwise set forth in an Offering Document or determined by the Administrator, an Eligible Employee may become a Participant in the Plan for an Offering Period by delivering a subscription agreement to the Company by such time prior to the Enrollment Date for such Offering Period (or such other date specified in the Offering Document) designated by the Administrator and in such form as the Company provides.

(b) Each subscription agreement shall designate a whole percentage of such Eligible Employee's Compensation to be withheld by the Company or the Designated Subsidiary employing such Eligible Employee on each payday during the Offering Period as payroll deductions under the Plan. The

percentage of Compensation designated by an Eligible Employee may not be less than 1% and may not be more than the maximum percentage specified by the Administrator in the applicable Offering Document (which percentage shall be 25% in the absence of any such designation) as payroll deductions. The payroll deductions made for each Participant shall be credited to an account for such Participant under the Plan and shall be deposited with the general funds of the Company.

(c) A Participant may increase or decrease the percentage of Compensation designated in his or her subscription agreement, subject to the limits of this Section 5.2, or may suspend his or her payroll deductions, at any time during an Offering Period; provided, however, that the Administrator may limit the number of changes a Participant may make to his or her payroll deduction elections during each Offering Period in the applicable Offering Document (and in the absence of any specific designation by the Administrator, a Participant shall be allowed one change to his or her payroll deduction elections during each Offering Period). Any such change or suspension of payroll deductions shall be effective with the first full payroll period following five business days after the Company's receipt of the new subscription agreement (or such shorter or longer period as may be specified by the Administrator in the applicable Offering Document). In the event a Participant suspends his or her payroll deductions, such Participant's cumulative payroll deductions prior to the suspension shall remain in his or her account and shall be applied to the purchase of Shares on the next occurring Purchase Date and shall not be paid to such Participant unless he or she withdraws from participation in the Plan pursuant to Article VII.

(d) Except as otherwise set forth in an Offering Document or determined by the Administrator, a Participant may participate in the Plan only by means of payroll deduction and may not make contributions by lump sum payment for any Offering Period.

5.3 Payroll Deductions. Except as otherwise provided in the applicable Offering Document, payroll deductions for a Participant shall commence on the first payroll following the Enrollment Date and shall end on the last payroll in the Offering Period to which the Participant's authorization is applicable, unless sooner terminated by the Participant as provided in Article VII or suspended by the Participant or the Administrator as provided in Section 5.2 and Section 5.6, respectively.

5.4 Effect of Enrollment. A Participant's completion of a subscription agreement will enroll such Participant in the Plan for each subsequent Offering Period on the terms contained therein until the Participant either submits a new subscription agreement, withdraws from participation under the Plan as provided in Article VII or otherwise becomes ineligible to participate in the Plan.

5.5 Limitation on Purchase of Common Stock. An Eligible Employee may be granted rights under the Plan only if such rights, together with any other rights granted to such Eligible Employee under "employee stock purchase plans" of the Company, any Parent or any Subsidiary, as specified by Section 423(b)(8) of the Code, do not permit such employee's rights to purchase stock of the Company or any Parent or Subsidiary to accrue at a rate that exceeds $25,000 of the fair market value of such stock (determined as of the first day of the Offering Period during which such rights are granted) for each calendar year in which such rights are outstanding at any time. This limitation shall be applied in accordance with Section 423(b)(8) of the Code.

5.6 Decrease or Suspension of Payroll Deductions. Notwithstanding the foregoing, to the extent necessary to comply with Section 423(b)(8) of the Code and Section 5.5 or the other limitations set forth in this Plan, a Participant's payroll deductions may be suspended by the Administrator at any time during an Offering Period. The balance of the amount credited to the account of each Participant that has not been applied to the purchase of Shares by reason of Section 423(b)(8) of the Code, Section 5.5 or the other limitations set forth in this Plan shall be paid to such Participant in one lump sum in cash as soon as reasonably practicable after the Purchase Date.

5.7 Foreign Employees. In order to facilitate participation in the Plan, the Administrator may provide for such special terms applicable to Participants who are citizens or residents of a foreign jurisdiction, or who are employed by a Designated Subsidiary outside of the United States, as the Administrator may consider necessary or appropriate to accommodate differences in local law, tax policy or custom. Such special terms may not be more favorable than the terms of rights granted under the Plan to Eligible Employees who are residents of the United States. Moreover, the Administrator may approve such supplements to, or amendments, restatements or alternative versions of, this Plan as it may consider necessary or appropriate for such purposes without thereby affecting the terms of this Plan as in effect for any other purpose. No such special terms, supplements, amendments or restatements shall include any provisions that are inconsistent with the terms of this Plan as then in effect unless this Plan could have been amended to eliminate such inconsistency without further approval by the stockholders of the Company.

5.8 Leave of Absence. During leaves of absence approved by the Company meeting the requirements of Treasury Regulation Section 1.421-1(h)(2) under the Code, a Participant may continue participation in the Plan by making cash payments to the Company on his or her normal payday equal to his or her authorized payroll deduction.

ARTICLE VI.
GRANT AND EXERCISE OF RIGHTS

6.1 Grant of Rights. On the Enrollment Date of each Offering Period, each Eligible Employee participating in such Offering Period shall be granted a right to purchase the maximum number of Shares specified under Section 4.2, subject to the limits in Section 5.5, and shall have the right to buy, on each Purchase Date during such Offering Period (at the applicable Purchase Price), such number of whole Shares as is determined by dividing (a) such Participant's payroll deductions accumulated prior to such Purchase Date and retained in the Participant's account as of the Purchase Date, by (b) the applicable Purchase Price (rounded down to the nearest Share). The right shall expire on the last day of the Offering Period.

6.2 Exercise of Rights. On each Purchase Date, each Participant's accumulated payroll deductions and any other additional payments specifically provided for in the applicable Offering Document will be applied to the purchase of whole Shares, up to the maximum number of Shares permitted pursuant to the terms of the Plan and the applicable Offering Document, at the Purchase Price. No fractional Shares shall be issued upon the exercise of rights granted under the Plan, unless the Offering Document specifically provides otherwise. Any cash in lieu of fractional Shares remaining after the purchase of whole Shares upon exercise of a purchase right will be credited to a Participant's account and carried forward and applied toward the purchase of whole Shares for the next following Offering Period. Shares issued pursuant to the Plan may be evidenced in such manner as the Administrator may determine and may be issued in certificated form or issued pursuant to book-entry procedures.

6.3 Pro Rata Allocation of Shares. If the Administrator determines that, on a given Purchase Date, the number of Shares with respect to which rights are to be exercised may exceed (a) the number of Shares that were available for issuance under the Plan on the Enrollment Date of the applicable Offering Period, or (b) the number of Shares available for issuance under the Plan on such Purchase Date, the Administrator may in its sole discretion provide that the Company shall make a pro rata allocation of the Shares available for purchase on such Enrollment Date or Purchase Date, as applicable, in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all

Participants for whom rights to purchase Common Stock are to be exercised pursuant to this Article VI on such Purchase Date, and shall either (i) continue all Offering Periods then in effect, or (ii) terminate any or all Offering Periods then in effect pursuant to Article IX. The Company may make pro rata allocation of the Shares available on the Enrollment Date of any applicable Offering Period pursuant to the preceding sentence, notwithstanding any authorization of additional Shares for issuance under the Plan by the Company's stockholders subsequent to such Enrollment Date. The balance of the amount credited to the account of each Participant that has not been applied to the purchase of Shares shall be paid to such Participant in one lump sum in cash as soon as reasonably practicable after the Purchase Date.

6.4 Withholding. At the time a Participant's rights under the Plan are exercised, in whole or in part, or at the time some or all of the Common Stock issued under the Plan is disposed of, the Participant must make adequate provision for the Company's federal, state, or other tax withholding obligations, if any, that arise upon the exercise of the right or the disposition of the Common Stock. At any time, the Company may, but shall not be obligated to, withhold from the Participant's compensation the amount necessary for the Company to meet applicable withholding obligations, including any withholding required to make available to the Company any tax deductions or benefits attributable to sale or early disposition of Common Stock by the Participant.

6.5 Conditions to Issuance of Common Stock. The Company shall not be required to issue or deliver any certificate or certificates for, or make any book entries evidencing, Shares purchased upon the exercise of rights under the Plan prior to fulfillment of all of the following conditions:

(a) The admission of such Shares to listing on all stock exchanges, if any, on which the Common Stock is then listed;

(b) The completion of any registration or other qualification of such Shares under any state or federal law or under the rulings or regulations of the Securities and Exchange Commission or any other governmental regulatory body, that the Administrator shall, in its absolute discretion, deem necessary or advisable;

(c) The obtaining of any approval or other clearance from any state or federal governmental agency that the Administrator shall, in its absolute discretion, determine to be necessary or advisable;

(d) The payment to the Company of all amounts that it is required to withhold under federal, state or local law upon exercise of the rights, if any; and

(e) The lapse of such reasonable period of time following the exercise of the rights as the Administrator may from time to time establish for reasons of administrative convenience.

ARTICLE VII.
WITHDRAWAL; CESSATION OF ELIGIBILITY

7.1 Withdrawal. A Participant may withdraw all but not less than all of the payroll deductions credited to his or her account and not yet used to exercise his or her rights under the Plan at any time by giving written notice to the Company in a form acceptable to the Company no later than one week prior to the end of the Offering Period. All of the Participant's payroll deductions credited to his or her account during an Offering Period shall be paid to such Participant as soon as reasonably practicable after receipt of notice of withdrawal and such Participant's rights for the Offering Period shall be automatically terminated, and no further payroll deductions for the purchase of Shares shall be made for such Offering Period. If a Participant withdraws from an Offering Period, payroll deductions shall not resume at the beginning of the next Offering Period unless the Participant timely delivers to the Company a new subscription agreement.

7.2 Future Participation. A Participant's withdrawal from an Offering Period shall not have any effect upon his or her eligibility to participate in any similar plan that may hereafter be adopted by the Company or a Designated Subsidiary or in subsequent Offering Periods that commence after the termination of the Offering Period from which the Participant withdraws.

7.3 Cessation of Eligibility. Upon a Participant's ceasing to be an Eligible Employee for any reason, he or she shall be deemed to have elected to withdraw from the Plan pursuant to this Article VII and the payroll deductions credited to such Participant's account during the Offering Period shall be paid to such Participant or, in the case of his or her death, to the person or persons entitled thereto under Section 12.4, as soon as reasonably practicable, and such Participant's rights for the Offering Period shall be automatically terminated.

ARTICLE VIII.
ADJUSTMENTS UPON CHANGES IN STOCK

8.1 Changes in Capitalization. Subject to Section 8.3, in the event that the Administrator determines that any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), Change in Control, reorganization, merger, amalgamation, consolidation, combination, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of all or substantially all of the assets of the Company, or sale or exchange of Common Stock or other securities of the Company, issuance of warrants or other rights to purchase Common Stock or other securities of the Company, or other similar corporate transaction or event, as determined by the Administrator, affects the Common Stock such that an adjustment is determined by the Administrator to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the Plan or with respect to any outstanding purchase rights under the Plan, the Administrator shall make equitable adjustments, if any, to reflect such change with respect to (a) the aggregate number and type of Shares (or other securities or property) that may be issued under the Plan (including, but not limited to, adjustments of the limitations in Section 3.1 and the limitations established in each Offering Document pursuant to Section 4.2 on the maximum number of Shares that may be purchased); (b) the class(es) and number of Shares and price per Share subject to outstanding rights; and (c) the Purchase Price with respect to any outstanding rights.

8.2 Other Adjustments. Subject to Section 8.3, in the event of any transaction or event described in Section 8.1 or any unusual or nonrecurring transactions or events affecting the Company, any affiliate of the Company, or the financial statements of the Company or any affiliate (including without limitation any Change in Control), or of changes in Applicable Law or accounting principles, the Administrator, in its discretion, and on such terms and conditions as it deems appropriate, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent the dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any right under the Plan, to facilitate such transactions or events or to give effect to such changes in laws, regulations or principles:

(a) To provide for either (i) termination of any outstanding right in exchange for an amount of cash, if any, equal to the amount that would have been obtained upon the exercise of such right had such right been currently exercisable or (ii) the replacement of such outstanding right with other rights or property selected by the Administrator in its sole discretion;

(b) To provide that the outstanding rights under the Plan shall be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar rights covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices;

(c) To make adjustments in the number and type of Shares (or other securities or property) subject to outstanding rights under the Plan and/or in the terms and conditions of outstanding rights and rights that may be granted in the future;

(d) To provide that Participants' accumulated payroll deductions may be used to purchase Common Stock prior to the next occurring Purchase Date on such date as the Administrator determines in its sole discretion and the Participants' rights under the ongoing Offering Period(s) shall be terminated; and

(e) To provide that all outstanding rights shall terminate without being exercised.

8.3 No Adjustment Under Certain Circumstances. No adjustment or action described in this Article VIII or in any other provision of the Plan shall be authorized to the extent that such adjustment or action would cause the Plan to fail to satisfy the requirements of Section 423 of the Code.

8.4 No Other Rights. Except as expressly provided in the Plan, no Participant shall have any rights by reason of any subdivision or consolidation of shares of stock of any class, the payment of any dividend, any increase or decrease in the number of shares of stock of any class or any dissolution, liquidation, merger, or consolidation of the Company or any other corporation. Except as expressly provided in the Plan or pursuant to action of the Administrator under the Plan, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number of Shares subject to outstanding rights under the Plan or the Purchase Price with respect to any outstanding rights.

ARTICLE IX.
AMENDMENT, MODIFICATION AND TERMINATION

9.1 Amendment, Modification and Termination. The Administrator may amend, suspend or terminate the Plan at any time and from time to time; provided, however, that approval of the Company's stockholders shall be required to amend the Plan to: (a) increase the aggregate number, or change the type, of shares that may be sold pursuant to rights under the Plan under Section 3.1 (other than an adjustment as provided by Article VIII); (b) change the corporations or classes of corporations whose employees may be granted rights under the Plan; or (c) change the Plan in any manner that would cause the Plan to no longer be an "employee stock purchase plan" within the meaning of Section 423(b) of the Code.

9.2 Certain Changes to Plan. Without stockholder consent and without regard to whether any Participant rights may be considered to have been adversely affected, to the extent permitted by Section 423 of the Code, the Administrator shall be entitled to change the Offering Periods, limit the frequency and/or number of changes in the amount withheld from Compensation during an Offering Period, establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars, permit payroll withholding in excess of the amount designated by a Participant in order to adjust for delays or mistakes in the Company's processing of withholding elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each Participant properly correspond with amounts withheld from the Participant's Compensation, and establish such other limitations or procedures as the Administrator determines in its sole discretion to be advisable that are consistent with the Plan.

9.3 Actions In the Event of Unfavorable Financial Accounting Consequences. In the event the Administrator determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Administrator may, in its discretion and, to the extent necessary or desirable, modify or amend the Plan to reduce or eliminate such accounting consequence including, but not limited to:

(a) altering the Purchase Price for any Offering Period including an Offering Period underway at the time of the change in Purchase Price;

(b) shortening any Offering Period so that the Offering Period ends on a new Purchase Date, including an Offering Period underway at the time of the Administrator action; and

(c) allocating Shares.

Such modifications or amendments shall not require stockholder approval or the consent of any Participant.

9.4 Payments Upon Termination of Plan. Upon termination of the Plan, the balance in each Participant's Plan account shall be refunded as soon as practicable after such termination, without any interest thereon.

ARTICLE X.
TERM OF PLAN

The Plan shall be effective on the Effective Date. The effectiveness of the Plan shall be subject to approval of the Plan by the stockholders of the Company within twelve months following the date the Plan is first approved by the Board. No right may be granted under the Plan prior to such stockholder approval. No rights may be granted under the Plan during any period of suspension of the Plan or after termination of the Plan.

ARTICLE XI.
ADMINISTRATION

11.1 Administrator. Unless otherwise determined by the Board, the Administrator of the Plan shall be the Compensation Committee of the Board (or another committee or a subcommittee of the Board to which the Board delegates administration of the Plan) (such committee, the "***Committee***"). The Board may at any time vest in the Board any authority or duties for administration of the Plan.

11.2 Action by the Administrator. Unless otherwise established by the Board or in any charter of the Administrator, a majority of the Administrator shall constitute a quorum. The acts of a majority of the members present at any meeting at which a quorum is present and, subject to Applicable Law and the Bylaws of the Company, acts approved in writing by a majority of the Administrator in lieu of a meeting, shall be deemed the acts of the Administrator. Each member of the Administrator is entitled to, in good faith, rely or act upon any report or other information furnished to that member by any officer or other employee of the Company or any Designated Subsidiary, the Company's independent certified public accountants, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan.

11.3 Authority of Administrator. The Administrator shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(a) To determine when and how rights to purchase Common Stock shall be granted and the provisions of each offering of such rights (which need not be identical).

(b) To designate from time to time which Subsidiaries of the Company shall be Designated Subsidiaries, which designation may be made without the approval of the stockholders of the Company.

(c) To construe and interpret the Plan and rights granted under it, and to establish, amend and revoke rules and regulations for its administration. The Administrator, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan, in a manner and to the extent it shall deem necessary or expedient to make the Plan fully effective.

(d) To amend, suspend or terminate the Plan as provided in Article IX.

(e) Generally, to exercise such powers and to perform such acts as the Administrator deems necessary or expedient to promote the best interests of the Company and its Subsidiaries and to carry out the intent that the Plan be treated as an "employee stock purchase plan" within the meaning of Section 423 of the Code.

11.4 Decisions Binding. The Administrator's interpretation of the Plan, any rights granted pursuant to the Plan, any subscription agreement and all decisions and determinations by the Administrator with respect to the Plan are final, binding, and conclusive on all parties.

ARTICLE XII.
MISCELLANEOUS

12.1 Restriction upon Assignment. A right granted under the Plan shall not be transferable other than by will or the applicable laws of descent and distribution, and is exercisable during the Participant's lifetime only by the Participant. Except as provided in Section 12.4 hereof, a right under the Plan may not be exercised to any extent except by the Participant. The Company shall not recognize and shall be under no duty to recognize any assignment or alienation of the Participant's interest in the Plan, the Participant's rights under the Plan or any rights thereunder.

12.2 Rights as a Stockholder. With respect to Shares subject to a right granted under the Plan, a Participant shall not be deemed to be a stockholder of the Company, and the Participant shall not have any of the rights or privileges of a stockholder, until such Shares have been issued to the Participant or his or her nominee following exercise of the Participant's rights under the Plan. No adjustments shall be made for dividends (ordinary or extraordinary, whether in cash securities, or other property) or distribution or other rights for which the record date occurs prior to the date of such issuance, except as otherwise expressly provided herein or as determined by the Administrator.

12.3 Interest. No interest shall accrue on the payroll deductions or contributions of a Participant under the Plan.

12.4 Designation of Beneficiary.

(a) A Participant may, in the manner determined by the Administrator, file a written designation of a beneficiary who is to receive any Shares and/or cash, if any, from the Participant's account under the Plan in the event of such Participant's death subsequent to a Purchase Date on which the Participant's rights are exercised but prior to delivery to such Participant of such Shares and cash. In addition, a Participant may file a written designation of a beneficiary who is to receive any cash from the Participant's account under the Plan in the event of such Participant's death prior to exercise of the Participant's rights under the Plan. If the Participant is married and resides in a community property state, a designation of a person other than the Participant's spouse as his or her beneficiary shall not be effective without the prior written consent of the Participant's spouse.

(b) Such designation of beneficiary may be changed by the Participant at any time by written notice to the Company. In the event of the death of a Participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such Participant's death, the Company shall deliver such Shares and/or cash to the executor or administrator of the estate of the Participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such Shares and/or cash to the spouse or to any one or more dependents or relatives of the Participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

12.5 Notices. All notices or other communications by a Participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

12.6 Equal Rights and Privileges. Subject to Section 5.7, all Eligible Employees will have equal rights and privileges under this Plan so that this Plan qualifies as an "employee stock purchase plan" within the meaning of Section 423 of the Code. Subject to Section 5.7, any provision of this Plan that is inconsistent with Section 423 of the Code will, without further act or amendment by the Company, the Board or the Administrator, be reformed to comply with the equal rights and privileges requirement of Section 423 of the Code.

12.7 Use of Funds. All payroll deductions received or held by the Company under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions.

12.8 Reports. Statements of account shall be given to Participants at least annually, which statements shall set forth the amounts of payroll deductions, the Purchase Price, the number of Shares purchased and the remaining cash balance, if any.

12.9 No Employment Rights. Nothing in the Plan shall be construed to give any person (including any Eligible Employee or Participant) the right to remain in the employ of the Company or any Parent or Subsidiary or affect the right of the Company or any Parent or Subsidiary to terminate the employment of any person (including any Eligible Employee or Participant) at any time, with or without cause.

12.10 Notice of Disposition of Shares. Each Participant shall give prompt notice to the Company of any disposition or other transfer of any Shares purchased upon exercise of a right under the Plan if such disposition or transfer is made: (a) within two years from the Enrollment Date of the Offering Period in which the Shares were purchased or (b) within one year after the Purchase Date on which such Shares were purchased. Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by the Participant in such disposition or other transfer.

12.11 Governing Law. The Plan and any agreements hereunder shall be administered, interpreted and enforced under the internal laws of the State of Delaware without regard to conflicts of laws thereof or of any other jurisdiction.

12.12 Electronic Forms. To the extent permitted by Applicable Law and in the discretion of the Administrator, an Eligible Employee may submit any form or notice as set forth herein by means of an electronic form approved by the Administrator. Before the commencement of an Offering Period, the Administrator shall prescribe the time limits within which any such electronic form shall be submitted to the Administrator with respect to such Offering Period in order to be a valid election.

* * * * *

LYRA THERAPEUTICS, INC.

INDEMNIFICATION AGREEMENT

THIS INDEMNIFICATION AGREEMENT (the "***Agreement***") is made and entered into as of _____, 20[20] between Lyra Therapeutics, Inc., a Delaware corporation (the "***Company***"), and [Name] ("***Indemnitee***").

WITNESSETH THAT:

WHEREAS, highly competent persons have become more reluctant to serve corporations as directors, officers or in other capacities unless they are provided with adequate protection through insurance or adequate indemnification against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of the corporation;

WHEREAS, the Board of Directors of the Company (the "***Board***") has determined that, in order to attract and retain qualified individuals, the Company will attempt to maintain on an ongoing basis, at its sole expense, liability insurance to protect persons serving the Company and its subsidiaries from certain liabilities. Although the furnishing of such insurance has been a customary and widespread practice among United States-based corporations and other business enterprises, the Company believes that, given current market conditions and trends, such insurance may be available to it in the future only at higher premiums and with more exclusions. At the same time, directors, officers, and other persons in service to corporations or business enterprises are being increasingly subjected to expensive and time-consuming litigation relating to, among other things, matters that traditionally would have been brought only against the Company or business enterprise itself. The Bylaws of the Company require indemnification of the officers and directors of the Company. Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware ("***DGCL***"). The Bylaws and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the Board, officers and other persons with respect to indemnification;

WHEREAS, the uncertainties relating to such insurance and to indemnification have increased the difficulty of attracting and retaining such persons;

WHEREAS, the Board has determined that the increased difficulty in attracting and retaining such persons is detrimental to the best interests of the Company's stockholders and that the Company should act to assure such persons that there will be increased certainty of such protection in the future;

WHEREAS, it is reasonable, prudent and necessary for the Company contractually to 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 Company free from undue concern that they will not be so indemnified;

WHEREAS, this Agreement is a supplement to and in furtherance of the Bylaws of the Company and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder; [and]

WHEREAS, Indemnitee does not regard the protection available under the Company's Bylaws and insurance as adequate in the present circumstances, and may not be willing to serve as an officer or director without adequate protection, and the Company desires Indemnitee to serve in such capacity. Indemnitee is willing to serve, continue to serve and to take on additional service for or on behalf of the Company on the condition that he be so indemnified; [and]

[WHEREAS, Indemnitee has certain rights to indemnification and/or insurance provided by [NAME] which Indemnitee and [NAME] intend to be secondary to the primary obligation of the Company to indemnify Indemnitee as provided herein, with the Company's acknowledgement and agreement to the foregoing being a material condition to Indemnitee's willingness to serve on the Board;]

NOW, THEREFORE, in consideration of Indemnitee's agreement to serve as an officer or director from and after the date hereof, the parties hereto agree as follows:

1. Indemnity of Indemnitee. The Company hereby agrees to hold harmless and indemnify Indemnitee to the fullest extent permitted by law, as such may be amended from time to time. In furtherance of the foregoing indemnification, and without limiting the generality thereof:

(a) Proceedings Other Than Proceedings by or in the Right of the Company. Indemnitee shall be entitled to the rights of indemnification provided in this Section 1(a) if, by reason of his Corporate Status (as hereinafter defined), the Indemnitee is, or is threatened to be made, a party to or participant in any Proceeding (as hereinafter defined) other than a Proceeding by or in the right of the Company. Pursuant to this Section 1(a), Indemnitee shall be indemnified against all Expenses (as hereinafter defined), judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred by him, or on his behalf, in connection with such Proceeding or any claim, issue or matter therein, if the Indemnitee acted in good faith and in a manner the Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal Proceeding, had no reasonable cause to believe the Indemnitee's conduct was unlawful.

(b) Proceedings by or in the Right of the Company. Indemnitee shall be entitled to the rights of indemnification provided in this Section 1(b) if, by reason of his Corporate Status, the Indemnitee is, or is threatened to be made, a party to or participant in any Proceeding brought by or in the right of the Company. Pursuant to this Section 1(b), Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by the Indemnitee, or on the Indemnitee's behalf, in connection with such Proceeding if the Indemnitee acted in good faith and in a manner the Indemnitee reasonably believed to be in or not opposed to the best interests of the Company; provided, however, if applicable law so provides, no indemnification against such Expenses shall be made in respect of any claim, issue or matter in such Proceeding as to which Indemnitee shall have been adjudged to be liable to the Company unless and to the extent that the Court of Chancery of the State of Delaware shall determine that such indemnification may be made.

(c) Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of his Corporate Status, a party to and is successful, on the merits or otherwise, in any Proceeding, he shall be indemnified to the maximum extent permitted by law, as such may be amended from time to time, against all Expenses actually and reasonably incurred by him or on his behalf in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or on his behalf in connection with each successfully resolved claim, issue or matter. For purposes of this Section and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

(d) Indemnification of Appointing Stockholder. If (i) Indemnitee is or was affiliated with one or more venture capital funds that has invested in the Company (an "***Appointing Stockholder***"), and (ii) the Appointing Stockholder is, or is threatened to be made, a party to or a participant in any Proceeding relating to or arising by reason of Appointing Stockholder's position as a stockholder of, or lender to, the Company, or Appointing Stockholder's appointment of or affiliation with Indemnitee or any other director, including without limitation any alleged misappropriation of a Company asset or corporate opportunity, any claim of misappropriation or infringement of intellectual property relating to the Company, any alleged false or misleading statement or omission made by the Company (or on its behalf) or its employees or agents, or any allegation of inappropriate control or influence over the Company or its Board members, officers, equity holders or debt holders, then the Appointing Stockholder will be entitled to indemnification hereunder for Expenses to the same extent as Indemnitee, and the terms of this Agreement as they relate to procedures for indemnification of Indemnitee and advancement of Expenses shall apply to any such indemnification of Appointing Stockholder.

(e) The rights provided to the Appointing Stockholder under this Section 1(d) shall (i) be suspended during any period during which the Appointing Stockholder does not have a representative on the Company's Board and (ii) terminate on an initial public offering of the Company's Common Stock; provided, however, that in the event of any such suspension or termination, the Appointing Stockholder's rights to indemnification will not be suspended or terminated with respect to any Proceeding based in whole or in part on facts and circumstances occurring at any time prior to such suspension or termination regardless of whether the Proceeding arises before or after such suspension or termination. The Company and Indemnitee agree that the Appointing Stockholder is an express third party beneficiary of the terms of this Section 1(d).

2. Additional Indemnity. In addition to, and without regard to any limitations on, the indemnification provided for in Section 1 of this Agreement, the Company shall and hereby does indemnify and hold harmless Indemnitee against all Expenses, judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred by him or on his behalf if, by reason of his Corporate Status, he is, or is threatened to be made, a party to or participant in any Proceeding (including a Proceeding by or in the right of the Company), including, without limitation, all liability arising out of the negligence or active or passive wrongdoing of Indemnitee. The only limitation that shall exist upon the Company's obligations pursuant to this Agreement shall be that the Company shall not be obligated to make any payment to Indemnitee that is finally determined (under the procedures, and subject to the presumptions, set forth in Sections 6 and 7 hereof) to be unlawful.

3. Contribution.

(a) Whether or not the indemnification provided in Sections 1 and 2 hereof is available, in respect of any threatened, pending or completed action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), the Company shall pay, in the first instance, the entire amount of any judgment or settlement of such action, suit or proceeding without requiring Indemnitee to contribute to such payment and the Company hereby waives and relinquishes any right of contribution it may have against Indemnitee. The Company shall not enter into any settlement of any action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding) unless such settlement provides for a full and final release of all claims asserted against Indemnitee.

(b) Without diminishing or impairing the obligations of the Company 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 threatened, pending or completed action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), the Company shall contribute to the amount of Expenses, judgments, 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 Company and all officers, directors or employees of the Company, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), on the one hand, and Indemnitee, on the other hand, from the transaction or events from which such action, suit or 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 Company and all officers, directors or employees of the Company other than Indemnitee who are jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), on the one hand, and Indemnitee, on the other hand, in connection with the transaction or events that resulted in such expenses, judgments, fines or settlement amounts, as well as any other equitable considerations which applicable law may require to be considered. The relative fault of the Company and all officers, directors or employees of the Company, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such action, suit or 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 Company hereby agrees to fully indemnify and hold Indemnitee harmless from any claims of contribution which may be brought by officers, directors or employees of the Company, other than Indemnitee, who may be jointly liable with Indemnitee.

(d) To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (i) the relative benefits received by the Company and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding and/or (ii) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transaction(s).

4. Indemnification for Expenses of a Witness. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of his Corporate Status, a witness, or is made (or asked) to respond to discovery requests, in any Proceeding to which Indemnitee is not a party, he shall be indemnified against all Expenses actually and reasonably incurred by him or on his behalf in connection therewith.

5. Advancement of Expenses. Notwithstanding any other provision of this Agreement, the Company shall advance all Expenses incurred by or on behalf of Indemnitee in connection with any Proceeding by reason of Indemnitee's Corporate Status within thirty (30) days after the receipt by the Company of a statement or statements from Indemnitee requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by Indemnitee. The Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement, which shall constitute an undertaking by Indemnitee to repay any Expenses advanced if it shall ultimately be determined that Indemnitee is not entitled to be indemnified against such Expenses. Any advances and undertakings to repay pursuant to this Section 5 shall be unsecured and interest free.

6. Procedures and Presumptions for Determination of Entitlement to Indemnification. It is the intent of this Agreement to secure for Indemnitee rights of indemnity that are as favorable as may be permitted under the DGCL and public policy of the State of Delaware. Accordingly, the parties agree that the following procedures and presumptions shall apply in the event of any question as to whether Indemnitee is entitled to indemnification under this Agreement:

(a) To obtain indemnification under this Agreement, Indemnitee shall submit to the Company 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 Company shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that Indemnitee has requested indemnification. Notwithstanding the foregoing, any failure of Indemnitee to provide such a request to the Company, or to provide such a request in a timely fashion, shall not relieve the Company of any liability that it may have to Indemnitee unless, and to the extent that, such failure actually and materially prejudices the interests of the Company.

(b) Upon written request by Indemnitee for indemnification pursuant to the first sentence of Section 6(a) hereof, a determination with respect to Indemnitee's entitlement thereto shall be made in the specific case by one of the following four methods, which shall be at the election of the Board: (1) by a majority vote of the disinterested directors, even though less than a quorum, (2) by a committee of disinterested directors designated by a majority vote of the disinterested directors, even though less than a quorum, (3) if there are no disinterested directors or if the disinterested directors so direct, by independent legal counsel in a written opinion to the Board, a copy of which shall be delivered to the Indemnitee, or (4) if so directed by the Board, by the stockholders of the Company. For purposes hereof, disinterested directors are those members of the Board who are not parties to the action, suit or proceeding in respect of which indemnification is sought by Indemnitee.

(c) If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 6(b) hereof, the Independent Counsel shall be selected as provided in this Section 6(c). The Independent Counsel shall be selected by the Board. Indemnitee may, within ten (10) days after such written notice of selection shall have been given, deliver to the Company a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 13 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If a written objection is made and substantiated, the Independent Counsel selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit. If, within twenty (20) days after the conclusion of the Proceeding giving rise to the request for indemnification, no Independent Counsel shall have been selected and not objected to, either the Company or Indemnitee may petition the Court of Chancery of the State of Delaware for resolution of any objection which shall have been made by the Indemnitee to the Company's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the court or by such other person as 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 Counsel under Section 6(b) hereof. The Company shall pay any and all reasonable fees and expenses of Independent Counsel incurred by such Independent Counsel in connection with acting pursuant to Section 6(b) hereof, and the Company shall pay all reasonable fees and expenses incident to the procedures of this Section 6(c), regardless of the manner in which such Independent Counsel was selected or appointed.

(d) In making a determination with respect to entitlement to indemnification hereunder, the person or persons or entity making such determination shall presume that Indemnitee is entitled to indemnification under this Agreement. 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 Company (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 Company (including by its directors or independent legal counsel) that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(e) Indemnitee shall be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Enterprise (as hereinafter defined), including financial statements, or on information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, or on the advice of legal counsel for the Enterprise or on information or records given or reports made to the Enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Enterprise. In addition, the knowledge and/or actions, or failure to act, of any director, officer, agent or employee of the Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement. Whether or not the foregoing provisions of this Section 6(e) are satisfied, it shall in any event be presumed that Indemnitee has at all times acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

(f) If the person, persons or entity empowered or selected under Section 6 to determine whether Indemnitee is entitled to indemnification shall not have made a determination within sixty (60) days after the conclusion of the Proceeding giving rise to the request for indemnification, 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 such sixty (60)-day period may be extended for a reasonable time, not to exceed an additional thirty (30) days, if the person, persons or entity making such determination with respect to entitlement to indemnification in good faith requires such additional time to obtain or evaluate documentation and/or information relating thereto; and provided, further, that the foregoing provisions of this Section 6(f) shall not apply if the determination of entitlement to indemnification is to be made by the stockholders pursuant to Section 6(b) of this Agreement and if (A) within fifteen (15) days after the conclusion of the Proceeding giving rise to the request for indemnification, 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 resolution and such determination is made thereat, or (B) a special meeting of stockholders is called within fifteen (15) days after such resolution and such meeting is held for such purpose within sixty (60) days after having been so called and such determination is made thereat.

(g) Indemnitee shall cooperate with the person, persons or entity making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon 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 such determination. Any Independent Counsel, member of the Board or stockholder of the Company shall act reasonably and in good faith in making a determination regarding the Indemnitee's entitlement to indemnification under this Agreement. Any costs or expenses (including attorneys' fees and disbursements) incurred by Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(h) The Company 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 action, claim or proceeding to which Indemnitee is a party is resolved in any manner other than by adverse judgment against Indemnitee (including, without limitation, settlement of such action, claim or 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 action, suit or proceeding. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

(i) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his conduct was unlawful.

7. Remedies of Indemnitee.

(a) In the event that (i) a determination is made pursuant to Section 6 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 5 of this Agreement, (iii) no determination of entitlement to indemnification is made pursuant to Section 6(b) of this Agreement within ninety (90) days after the conclusion of the Proceeding giving rise to the request for indemnification, (iv) payment of indemnification required by Section 4 is not made pursuant to this Agreement within thirty (30) days after receipt by the Company of a written request therefor or (v) payment of indemnification is not made within ten (10) days after a determination has been made that Indemnitee is entitled to indemnification or such determination is deemed to have been made pursuant to Section 6 of this Agreement, Indemnitee shall be entitled to an adjudication in Court of Chancery of the State of Delaware of Indemnitee's entitlement to such indemnification. Indemnitee shall commence such proceeding seeking an adjudication within one hundred eighty (180) days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 7(a). The Company shall not oppose Indemnitee's right to seek any such adjudication.

(b) In the event that a determination shall have been made pursuant to Section 6(b) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding commenced pursuant to this Section 7 shall be conducted in all respects as a de novo trial on the merits, and Indemnitee shall not be prejudiced by reason of the adverse determination under Section 6(b).

(c) If a determination shall have been made pursuant to Section 6(b) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding commenced pursuant to this Section 7, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's misstatement not materially misleading in connection with the application for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) In the event that Indemnitee, pursuant to this Section 7, seeks a judicial adjudication of his rights under, or to recover damages for breach of, this Agreement, or to recover under any directors' and officers' liability insurance policies maintained by the Company, the Company shall pay on his behalf, in advance, any and all expenses (of the types described in the definition of Expenses in Section 13 of this Agreement) actually and reasonably incurred by him in such judicial adjudication, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, advancement of expenses or insurance recovery.

(e) The Company shall be precluded from asserting in any judicial proceeding commenced pursuant to this Section 7 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court that the Company is bound by all the provisions of this Agreement. The Company shall indemnify Indemnitee against any and all Expenses and, if requested by Indemnitee, shall (within ten (10) days after receipt by the Company of a written request therefore) advance, to the extent not prohibited by law, such expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advance of Expenses from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, advancement of Expenses or insurance recovery, as the case may be.

(f) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding.

8. Non-Exclusivity; Survival of Rights; Insurance; Primacy of Indemnification; Subrogation.

(a) The rights of indemnification as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation, the Bylaws, any agreement, a vote of stockholders, a resolution of directors of the Company, or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in the DGCL, whether by statute or judicial decision, permits greater indemnification than would be afforded currently under the Certificate of Incorporation, Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, officers, employees, or agents or fiduciaries of the Company or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise that such person serves at the request of the Company, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any director, officer, employee, agent or fiduciary under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has directors' and officers' liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(c) [The Company hereby acknowledges that Indemnitee has certain rights to indemnification, advancement of expenses and/or insurance provided by [▯] and certain of its affiliates (collectively, the "***Fund Indemnitors***"). The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full amount of expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the or Bylaws of the Company (or any other agreement between the Company and Indemnitee), without regard to any rights Indemnitee 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 Indemnitee with respect to any claim for which Indemnitee 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 Indemnitee against the Company. The Company and Indemnitee agree that the Fund Indemnitors are express third party beneficiaries of the terms of this Section 8(c).]

(d) [Except as provided in paragraph (c) above,] in the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee (other than against the Fund Indemnitors), who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

(e) [Except as provided in paragraph (c) above,] the Company shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable hereunder if and to the extent that Indemnitee has otherwise actually received such payment under any insurance policy, contract, agreement or otherwise.

(f) [Except as provided in paragraph (c) above,] the Company's obligation to indemnify or advance Expenses hereunder to Indemnitee who is or was serving at the request of the Company as a director, officer, employee or agent of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise.

9. Exception to Right of Indemnification. Notwithstanding any provision in this Agreement, the Company shall not be obligated under this Agreement to make any indemnity in connection with any claim made against Indemnitee:

(a) for which payment has actually been made to or on behalf of Indemnitee under any insurance policy or other indemnity provision, except with respect to any excess beyond the amount paid under any insurance policy or other indemnity provision[, provided, that the foregoing shall not affect the rights of Indemnitee or the Fund Indemnitors set forth in Section 8(c) above]; or

(b) for an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company 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) in connection with any Proceeding (or any part of any Proceeding) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Company or its directors, officers, employees or other indemnitees, unless (i) the Board authorized the Proceeding (or any part of any Proceeding) prior to its initiation or (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law.

10. Duration of Agreement. All agreements and obligations of the Company contained herein shall continue during the period Indemnitee is an officer or director of the Company (or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise) and shall continue thereafter so long as Indemnitee shall be subject to any Proceeding (or any proceeding commenced under Section 7 hereof) by reason of his Corporate Status, whether or not he 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. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company), assigns, spouses, heirs, executors and personal and legal representatives.

11. Security. To the extent requested by Indemnitee and approved by the Board, the Company may at any time and from time to time provide security to Indemnitee for the Company's obligations hereunder through an irrevocable bank line of credit, funded trust or other collateral. Any such security, once provided to Indemnitee, may not be revoked or released without the prior written consent of the Indemnitee.

12. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumes the obligations imposed on it hereby in order to induce Indemnitee to serve as an officer or director of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as an officer or director of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof.

(c) The Company shall not seek from a court, or agree to, a "bar order" which would have the effect of prohibiting or limiting the Indemnitee's rights to receive advancement of expenses under this Agreement.

13. Definitions. For purposes of this Agreement:

(a) "***Corporate Status***" describes the status of a person who is or was a director, officer, employee, agent or fiduciary of the Company or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise that such person is or was serving at the express written request of the Company.

(b) "***Disinterested Director***" means a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(c) "***Enterprise***" shall mean the Company and any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise that Indemnitee is or was serving at the express written request of the Company as a director, officer, employee, agent or fiduciary.

(d) "***Expenses***" shall include all reasonable attorneys' 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, participating, or being or preparing to be a witness in a Proceeding, or responding to, or objecting to, a request to provide discovery in any Proceeding. Expenses also shall include Expenses incurred in connection with any appeal resulting from any Proceeding and any federal, state, local or foreign taxes imposed on the Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement, including without limitation 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.

(e) "***Independent 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 Company or Indemnitee in any matter material to either such party (other than with respect to matters concerning Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent 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 Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees of the Independent Counsel referred to above and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(f) "***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 Company 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 his or her Corporate Status, by reason of any action taken by him or of any inaction on his part while acting in his or her Corporate Status; in each case whether or not he 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 an Indemnitee pursuant to Section 7 of this Agreement to enforce his rights under this Agreement.

14. Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision. Further, the invalidity or unenforceability of any provision hereof as to either Indemnitee or Appointing Stockholder shall in no way affect the validity or enforceability of any provision hereof as to the other. Without limiting the generality of the foregoing, this Agreement is intended to confer upon Indemnitee and Appointing Stockholder indemnification rights to the fullest extent permitted by applicable laws. In the event any provision hereof conflicts with any applicable law, such provision shall be deemed modified, consistent with the aforementioned intent, to the extent necessary to resolve such conflict.

15. Modification and Waiver. No supplement, modification, termination or amendment of this Agreement shall be binding unless executed in writing by both of the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

16. Notice By Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with or otherwise receiving any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification covered hereunder. The failure to so notify the Company shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise unless and only to the extent that such failure or delay materially prejudices the Company.

17. Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, 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:

(a) To Indemnitee at the address set forth below Indemnitee signature hereto.

(b) To the Company at:

Lyra Therapeutics, Inc.
480 Arsenal Way
Watertown, MA 02472
Attention: Chief Executive Officer

or to such other address as may have been furnished to Indemnitee by the Company or to the Company by Indemnitee, as the case may be.

18. 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. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or any other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

19. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

20. Governing Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. The Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Chancery Court of the State of Delaware (the "***Delaware Court***"), and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) appoint, to the extent such party is not otherwise subject to service of process in the State of Delaware, irrevocably The Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801 as its agent in the State of Delaware as such party's agent for acceptance of legal process in connection with any such action or proceeding against such party with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court, and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement on and as of the day and year first above written.

LYRA THERAPEUTICS, INC.

By: _____
Name: _____
Title: _____

INDEMNITEE

_____
Name: _____

Address:

_____
_____
_____
_____

Employment Agreement

This Employment Agreement (this "Agreement"), dated as of April 27, 2020, is made by and between Lyra Therapeutics, Inc., a Delaware corporation (together with any successor thereto, the "Company"), and Maria Palasis ("Executive") (collectively referred to herein as the "Parties" or individually referred to as a "Party").

RECITALS

A. It is the desire of the Company to assure itself of the services of Executive as of the Effective Date and thereafter by entering into this Agreement.

B. Executive and the Company mutually desire that Executive provide services to the Company on the terms herein provided.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements set forth below, the Parties hereto agree as follows:

1. Employment.

(a) General. Effective on the consummation of the Company's initial public offering of stock pursuant to an effective registration statement filed under the Securities Act of 1933, as amended (the "Effective Date"), the Company shall employ Executive, and Executive shall be employed by the Company, for the period and in the positions set forth in this Section 1, and subject to the other terms and conditions herein provided.

(b) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be "at-will," as defined under applicable law, and that Executive's employment with the Company may be terminated by either Party at any time for any or no reason (subject to the notice requirements of Section 3(b)). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly authorized officer of the Company. If Executive's employment terminates for any reason, Executive shall not be entitled to any payments, benefits, damages, award or compensation other than as provided in this Agreement or otherwise agreed to in writing by the Company or as provided by applicable law. The term of this Agreement (the "Term") shall commence on the Effective Date and end on the date this Agreement is terminated under Section 3.

(c) Positions and Duties. During the Term, Executive shall serve as President and Chief Executive Officer of the Company, with such responsibilities, duties and authority normally associated with such position and as may from time to time be assigned to Executive by the Board of Directors of the Company or an authorized committee thereof (in either case, the "Board"). Executive shall devote substantially all of Executive's working time and efforts to the business and affairs of the Company (which shall include service to its affiliates, if applicable) and shall not engage in outside business activities (including serving on outside boards or committees) without the consent of the Board, provided that Executive shall be permitted to (i) manage Executive's personal, financial and legal affairs, (ii) participate in trade associations, and (iii) serve on the board of directors of not-for-profit or tax-exempt

charitable organizations, in each case, subject to compliance with this Agreement and provided that such activities do not materially interfere with Executive's performance of Executive's duties and responsibilities hereunder. Executive agrees to observe and comply with the rules and policies of the Company as adopted by the Company from time to time, in each case, as amended from time to time, and as delivered or made available to Executive (collectively, the "Policies" and, each, a "Policy").

2. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at a rate of $500,000 per annum, which shall be paid in accordance with the customary payroll practices of the Company and shall be pro-rated for partial years of employment. Such annual base salary shall be reviewed (and may be adjusted) from time to time by the Board (such annual base salary, as it may be adjusted from time to time, the "Annual Base Salary").

(b) Annual Cash Bonus Opportunity. During the Term, Executive will be eligible to participate in an annual incentive program established by the Board. Executive's annual incentive compensation under such incentive program (the "Annual Bonus") shall be targeted at 55% of Executive's Annual Base Salary (such target, as may be increased by the Board from time to time, the "Target Annual Bonus"). The Annual Bonus payable under the incentive program shall be based on the achievement of performance goals to be determined by the Board. The payment of any Annual Bonus pursuant to the incentive program shall be subject to Executive's continued employment with the Company through the date of payment, except as otherwise provided in Section 4(b).

(c) Benefits. During the Term, Executive shall be eligible to participate in employee benefit plans, programs and arrangements of the Company (including medical, dental and 401(k) plans), subject to the terms and eligibility requirements thereof and as such plans, programs and arrangements may be amended from time to time. In no event shall Executive be eligible to participate in any severance plan or program of the Company, except as set forth in Section 4 of this Agreement.

(d) Vacation. During the Term, Executive shall be entitled to paid personal leave in accordance with the Company's Policies. Any vacation shall be taken at the reasonable and mutual convenience of the Company and Executive.

(e) Business Expenses. During the Term, the Company shall reimburse Executive for all reasonable travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's expense reimbursement Policy.

(f) Key Person Insurance. At any time during the Term, the Company shall have the right (but not the obligation) to insure the life of Executive for the Company's sole benefit. The Company shall have the right to determine the amount of insurance and the type of policy. Executive shall reasonably cooperate with the Company in obtaining such insurance by submitting to physical examinations, by supplying all information reasonably required by any insurance carrier and by executing all necessary documents reasonably required by any insurance carrier, provided that any information provided to an insurance company or broker shall not be provided to the Company without the prior written authorization of Executive. Executive shall incur no financial obligation by executing any required document and shall have no interest in any such policy.

3. Termination.

Both Executive's employment hereunder and the Term may be terminated by the Company or Executive, as applicable, without any breach of this Agreement under the following circumstances:

(a) Circumstances.

(i) *Death*. Executive's employment hereunder shall terminate upon Executive's death.

(ii) *Disability*. If Executive has incurred a Disability, as defined below, the Company may terminate Executive's employment.

(iii) *Termination for Cause*. The Company may terminate Executive's employment for Cause, as defined below.

(iv) *Termination without Cause*. The Company may terminate Executive's employment without Cause.

(v) *Resignation from the Company with Good Reason.* Executive may resign Executive's employment with the Company with Good Reason, as defined below.

(vi) *Resignation from the Company without Good Reason*. Executive may resign Executive's employment with the Company for any reason other than Good Reason or for no reason.

(b) Notice of Termination. Any termination of Executive's employment by the Company or by Executive under this Section 3 (other than termination pursuant to Section 3(a)(i)) shall be communicated by a written notice to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, if applicable, and (iii) specifying a Date of Termination (as defined below) which, if submitted by Executive, shall be at least thirty (30) days following the date of such notice (a "Notice of Termination"); *provided, however*, that in the event that Executive delivers a Notice of Termination to the Company, the Company may, in its sole discretion, change the Date of Termination to any date that occurs following the date of the Company's receipt of such Notice of Termination and is prior to the date specified in such Notice of Termination, but the termination will still be considered a resignation by Executive. A Notice of Termination submitted by the Company may provide for a Date of Termination on the date Executive receives the Notice of Termination, or any date thereafter elected by the Company. The failure by either Party to set forth in the Notice of Termination any fact or circumstance which contributes to a showing of Cause or Good Reason shall not waive any right of the Party hereunder or preclude the Party from asserting such fact or circumstance in enforcing the Party's rights hereunder.

(c) Company Obligations upon Termination. Upon termination of Executive's employment pursuant to any of the circumstances listed in this Section 3, Executive (or Executive's estate) shall be entitled to receive the sum of: (i) the portion of Executive's Annual Base Salary earned through the Date of Termination, but not yet paid to Executive; (ii) any expense reimbursements owed to Executive pursuant to Section 2(e); and (iii) any amount accrued and arising from Executive's participation in, or benefits accrued under any employee benefit plans, programs or arrangements, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs or arrangements (collectively, the "Company Arrangements"). Except as otherwise expressly required by law (e.g., the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA")) or as specifically provided herein, all of Executive's rights to salary, severance, benefits, bonuses and other compensatory amounts hereunder (if any) shall cease upon the termination of Executive's employment hereunder. In the event that Executive's employment is terminated by the Company for any reason, Executive's sole and exclusive remedy shall be to receive the payments and benefits described in this Section 3(c) or Section 4, as applicable.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and directorships, if any, then held with the Company or any of its subsidiaries.

4. Severance Payments.

(a) Termination for Cause, or Termination Upon Death, Disability or Resignation from the Company Without Good Reason. If Executive's employment shall terminate as a result of Executive's death pursuant to Section 3(a)(i), as a result of Disability pursuant to Section 3(a)(ii), for Cause pursuant to Section 3(a)(iii) or for Executive's resignation from the Company without Good Reason pursuant to Section 3(a)(iv), then Executive shall not be entitled to any severance payments or benefits, except as provided in Section 3(c).

(b) Termination without Cause, or Resignation from the Company with Good Reason. If Executive's employment terminates without Cause pursuant to Section 3(a)(iv), or pursuant to Section 3(a)(v) due to Executive's resignation with Good Reason, then, subject to Executive signing on or before the twenty-first (21st) day following Executive's Separation from Service (as defined below) or in the event that such Separation from Service is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967, as amended) on or before the forty-fifth (45th) day following Executive's Separation from Service, and not revoking, a release of claims substantially in the form attached as Exhibit A to this Agreement (the "Release"), and Executive's continued compliance with Section 5, Executive shall receive, in addition to payments and benefits set forth in Section 3(c), the following:

(i) an amount in cash equal to one times the Annual Base Salary, payable in the form of salary continuation in regular installments over the 12-month period following the date of Executive's Separation from Service (the "Severance Period") in accordance with the Company's normal payroll practices;

(ii) to the extent unpaid as of the Date of Termination, an amount of cash equal to any Annual Bonus earned by Executive for the Company's fiscal year prior to the fiscal year in which the Date of Termination occurs, as determined by the Board in its discretion based upon actual performance achieved, which Annual Bonus, if any, shall be paid to Executive in the fiscal year in which the Date of Termination occurs when bonuses for such prior fiscal year are paid in the ordinary course to actively employed senior executives of the Company; and

(iii) if Executive timely elects to receive continued medical, dental or vision coverage under one or more of the Company's group medical, dental or vision plans pursuant to COBRA, then the Company shall directly pay, or reimburse Executive for, the COBRA premiums for Executive and Executive's covered dependents under such plans, less the amount Executive would have had to pay to receive such coverage as an active employee based on the cost sharing levels in effect on the Date of Termination, during the period commencing on Executive's Separation from Service and ending upon the earliest of (X) the last day of the Severance Period, (Y) the date that Executive and/or Executive's covered dependents become no longer eligible for COBRA or (Z) the date Executive becomes eligible to receive medical, dental or vision coverage, as applicable, from a subsequent employer (and Executive agrees to promptly notify the Company of such eligibility). Notwithstanding the foregoing, if the Company determines in its

sole discretion that it cannot provide the foregoing benefit without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act) or incurring an excise tax, the Company shall in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue Executive's and Executive's covered dependents' group health coverage in effect on the Date of Termination (which amount shall be based on the premium for the first month of COBRA coverage), less the amount Executive would have had to pay to receive group health coverage as an active employee for Executive and his or her covered dependents based on the cost sharing levels in effect on the Date of Termination, which payments shall be made regardless of whether Executive elects COBRA continuation coverage and shall commence in the month following the month in which the Date of Termination occurs and shall end on the earliest of (X) the last day of the Severance Period, (Y) the date that Executive and/or Executive's covered dependents become no longer eligible for COBRA or (Z) the date Executive becomes eligible to receive healthcare coverage from a subsequent employer (and Executive agrees to promptly notify the Company of such eligibility).

(c) Change in Control. In lieu of the payments and benefits set forth in Section 4(b), in the event Executive's employment terminates without Cause pursuant to Section 3(a)(iv), or due to Executive's resignation with Good Reason pursuant to Section 3(a)(v), in either case, within three (3) months prior or twelve (12) months following the date of a Change in Control, subject to Executive signing on or before the twenty-first (21st) day following Executive's Separation from Service or in the event that such Separation from Service is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967, as amended) on or before the forty-fifth (45th) day following Executive's Separation from Service, and not revoking, the Release, Executive shall receive, in addition to the payments and benefits set forth in Section 3(c), the following:

(i) an amount in cash equal to 1.5 times the sum of (A) the Annual Base Salary plus (B) the Target Annual Bonus, payable in equal installments over the 18-month period following the date of Executive's Separation from Service (the "CIC Severance Period") in accordance with the Company's normal payroll practices;

(ii) the payment set forth in Section 4(b)(ii);

(iii) the benefits set forth in Section 4(b)(iii), provided that the "Severance Period" will mean the CIC Severance Period; and

(iv) all unvested equity or equity-based awards held by Executive under any Company equity compensation plans that vest solely based on the passage of time shall immediately become 100% vested (for the avoidance of doubt, with any such awards that vest in whole or in part based on the attainment of performance-vesting conditions being governed by the terms of the applicable award agreement).

(d) Survival. Notwithstanding anything to the contrary in this Agreement, the provisions of Sections 5 through 9 will survive the termination of Executive's employment and the termination of the Term.

5. Restrictive Covenants. Executive acknowledges that Executive remains bound by the Employee Non-Disclosure, Non-Competition, Non-Solicitation and Inventions Agreement between you and the Company (the "Restrictive Covenant Agreement"). Executive acknowledges and agrees that the terms of the Restrictive Covenant Agreement are incorporated by reference herein as if re-executed along with this Agreement. Executive acknowledges that the provisions of the Restrictive Covenant Agreement will survive the termination of Executive's employment and the termination of the Term for the periods set forth in the Restrictive Covenant Agreement.

6. Assignment and Successors.

The Company may assign its rights and obligations under this Agreement to any of its affiliates or to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise), and may assign or encumber this Agreement and its rights hereunder as security for indebtedness of the Company and its affiliates. This Agreement shall be binding upon and inure to the benefit of the Company, Executive and their respective successors, assigns, personnel and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will or operation of law. Notwithstanding the foregoing, Executive shall be entitled, to the extent permitted under applicable law and applicable Company Arrangements, to select and change a beneficiary or beneficiaries to receive compensation hereunder following Executive's death by giving written notice thereof to the Company.

7. Certain Definitions.

(a) Cause. The Company shall have "Cause" to terminate Executive's employment hereunder upon:

(i) The Board's reasonable, good faith determination that Executive has refused to (A) substantially perform the duties associated with Executive's position with the Company or (B) carry out the reasonable and lawful instructions of the Board concerning duties or actions consistent with the Executive's position with the Company;

(ii) Executive's breach of a material provision of this Agreement that, to the extent capable of cure, has remained uncured for a period of thirty (30) days following written notice from the Company;

(iii) Executive's conviction, plea of no contest, plea of *nolo contendere*, or imposition of unadjudicated probation for any felony or crime involving moral turpitude;

(iv) Executive's unlawful use (including being under the influence) or possession of illegal drugs on the Company's (or any of its affiliate's) premises or while performing Executive's duties and responsibilities under this Agreement; or

(v) Executive's commission of any act of fraud, embezzlement, misappropriation, willful misconduct, or breach of fiduciary duty against the Company or any of its affiliates.

(b) Change in Control. "Change in Control" shall have the meaning set forth in the Lyra Therapeutics, Inc. 2020 Incentive Award Plan.

(c) Code. "Code" shall mean the Internal Revenue Code of 1986, as amended, and the regulations and guidance promulgated thereunder.

(d) Date of Termination. "Date of Termination" shall mean (i) if Executive's employment is terminated by Executive's death, the date of Executive's death; or (ii) if Executive's employment is terminated pursuant to Section 3(a)(ii) – (vi) either the date indicated in the Notice of Termination or the date specified by the Company pursuant to Section 3(b), whichever is earlier.

(e) Disability. "Disability" shall mean, at any time the Company or any of its affiliates sponsors a long-term disability plan for the Company's employees, "disability" as defined in such long-term disability plan for the purpose of determining a participant's eligibility for benefits, *provided*, *however*, if the long-term disability plan contains multiple definitions of disability, "Disability" shall refer to that definition of disability which, if Executive qualified for such disability benefits, would provide coverage for the longest period of time. The determination of whether Executive has a Disability shall be made by the person or persons required to make disability determinations under the long-term disability plan. At any time the Company does not sponsor a long-term disability plan for its employees, "Disability" shall mean Executive's inability to perform, with or without reasonable accommodation, the essential functions of Executive's positions hereunder for a total of three months during any six-month period as a result of incapacity due to mental or physical illness as determined by a physician selected by the Company or its insurers and acceptable to Executive or Executive's legal representative, with such agreement as to acceptability not to be unreasonably withheld or delayed. Any refusal by Executive to submit to a medical examination for the purpose of determining Disability shall be deemed to constitute conclusive evidence of Executive's Disability.

(f) Good Reason. For the sole purpose of determining Executive's right to severance payments and benefits as described above, Executive's resignation will be with "Good Reason" if Executive resigns within ninety (90) days after any of the following events, unless Executive consents in writing to the applicable event: (i) a reduction in Executive's Annual Base Salary or Target Annual Bonus, other than a reduction of twenty percent (20%) or less of Executive's Annual Base Salary implemented as part of an across the board, proportionate reduction of base salaries for other members of the Company's management team, (ii) a material decrease in Executive's authority or areas of responsibility as are commensurate with Executive's title or position with the Company, (iii) the relocation of Executive's primary office to a location more than fifty (50) miles from the Executive's primary office as of the date of this Agreement or (iv) the Company's breach of a material provision of this Agreement. Notwithstanding the foregoing, no Good Reason will have occurred unless and until Executive has: (a) provided the Company, within sixty (60) days of Executive's knowledge of the occurrence of the facts and circumstances underlying the Good Reason event, written notice stating with specificity the applicable facts and circumstances underlying such finding of Good Reason; (b) provided the Company with an opportunity to cure the same within thirty (30) days after the receipt of such notice; and (c) the Company shall have failed to so cure within such period.

8. Parachute Payments.

(a) Notwithstanding any other provisions of this Agreement or any Company equity plan or agreement, in the event that any payment or benefit by the Company or otherwise to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (all such payments and benefits, including the payments and benefits under Section 4 hereof, being hereinafter referred to as the "Total Payments"), would be subject (in whole or in part) to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Total Payments shall be reduced (in the order provided in Section 8(b)) to the minimum extent necessary to avoid the imposition of the Excise Tax on the Total Payments, but only if (i) the net amount of such Total Payments, as so reduced

(and after subtracting the net amount of federal, state and local income and employment taxes on such reduced Total Payments and after taking into account the phase out of itemized deductions and personal exemptions attributable to such reduced Total Payments), is greater than or equal to (ii) the net amount of such Total Payments without such reduction (but after subtracting the net amount of federal, state and local income and employment taxes on such Total Payments and the amount of the Excise Tax to which Executive would be subject in respect of such unreduced Total Payments and after taking into account the phase out of itemized deductions and personal exemptions attributable to such unreduced Total Payments).

(b) The Total Payments shall be reduced in the following order: (i) reduction on a pro-rata basis of any cash severance payments that are exempt from Section 409A of the Code ("Section 409A"), (ii) reduction on a pro-rata basis of any non-cash severance payments or benefits that are exempt from Section 409A, (iii) reduction on a pro-rata basis of any other payments or benefits that are exempt from Section 409A and (iv) reduction of any payments or benefits otherwise payable to Executive on a pro-rata basis or such other manner that complies with Section 409A; provided, in case of clauses (ii), (iii) and (iv), that reduction of any payments attributable to the acceleration of vesting of Company equity awards shall be first applied to Company equity awards that would otherwise vest last in time.

(c) All determinations regarding the application of this Section 8 shall be made by an accounting firm or consulting group with experience in performing calculations regarding the applicability of Section 280G of the Code and the Excise Tax selected by the Company (the "Independent Advisors"). For purposes of determinations, no portion of the Total Payments shall be taken into account which, in the opinion of the Independent Advisors, (i) does not constitute a "parachute payment" within the meaning of Section 280G(b)(2) of the Code (including by reason of Section 280G(b)(4)(A) of the Code) or (ii) constitutes reasonable compensation for services actually rendered, within the meaning of Section 280G(b)(4)(B) of the Code, in excess of the "base amount" (as defined in Section 280G(b)(3) of the Code) allocable to such reasonable compensation. The costs of obtaining such determination and all related fees and expenses (including related fees and expenses incurred in any later audit) shall be borne by the Company.

(d) In the event it is later determined that a greater reduction in the Total Payments should have been made to implement the objective and intent of this Section 8, the excess amount shall be returned promptly by Executive to the Company.

9. Miscellaneous Provisions.

(a) Governing Law. This Agreement shall be governed, construed, interpreted and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the Commonwealth of Massachusetts without reference to the principles of conflicts of law of the Commonwealth of Massachusetts or any other jurisdiction that would result in the application of the laws of a jurisdiction other than the Commonwealth of Massachusetts, and where applicable, the laws of the United States.

(b) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(c) Notices. Any notice, request, claim, demand, document and other communication hereunder to any Party shall be effective upon receipt (or refusal of receipt) and shall be in writing and delivered personally or sent by facsimile or certified or registered mail, postage prepaid, as follows:

(i) If to the Company, to the Chief Financial Officer of the Company at the Company's headquarters,

(ii) If to Executive, to the last address that the Company has in its personnel records for Executive, or

(iii) At any other address as any Party shall have specified by notice in writing to the other Party.

(d) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile or PDF shall be deemed effective for all purposes.

(e) Entire Agreement. The terms of this Agreement, and the Restrictive Covenant Agreement incorporated herein by reference as set forth in Section 5, are intended by the Parties to be the final expression of their agreement with respect to the subject matter hereof and supersede all prior understandings and agreements, whether written or oral, including any prior employment offer letter or employment agreement between Executive and the Company. The Parties further intend that this Agreement shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative or other legal proceeding to vary the terms of this Agreement.

(f) Amendments; Waivers. This Agreement may not be modified, amended or terminated except by an instrument in writing, signed by Executive and a duly authorized officer of Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy or power hereunder will preclude any other or further exercise of any other right, remedy or power provided herein or by law or in equity.

(g) Construction. This Agreement shall be deemed drafted equally by both the Parties. Its language shall be construed as a whole and according to its fair meaning. Any presumption or principle that the language is to be construed against any Party shall not apply. The headings in this Agreement are only for convenience and are not intended to affect construction or interpretation. Any references to paragraphs, subparagraphs, sections or subsections are to those parts of this Agreement, unless the context clearly indicates to the contrary. Also, unless the context clearly indicates to the contrary, (i) the plural includes the singular and the singular includes the plural; (ii) "and" and "or" are each used both conjunctively and disjunctively; (iii) "any," "all," "each," or "every" means "any and all" and "each and every"; (iv) "includes" and "including" are each "without limitation"; (v) "herein," "hereof," "hereunder" and other similar compounds of the word "here" refer to the entire Agreement and not to any particular paragraph, subparagraph, section or subsection; and (vi) all pronouns and any variations thereof shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the identity of the entities or persons referred to may require.

(h) Arbitration. Any controversy, claim or dispute arising out of or relating to this Agreement, shall be settled solely and exclusively by a binding arbitration process administered by JAMS/Endispute in Boston, Massachusetts. Such arbitration shall be conducted in accordance with the then-existing JAMS/Endispute Rules of Practice and Procedure, with the following exceptions if in conflict: (i) one arbitrator who is a retired judge shall be chosen by JAMS/Endispute; (ii) each Party to

the arbitration will pay one-half of the expenses and fees of the arbitrator, together with other expenses of the arbitration incurred or approved by the arbitrator; and (iii) arbitration may proceed in the absence of any Party if written notice (pursuant to the JAMS/Endispute rules and regulations) of the proceedings has been given to such Party. Each Party shall bear its own attorney's fees and expenses; provided that the arbitrator may assess the prevailing Party's fees and costs against the non-prevailing Party as part of the arbitrator's award. The Parties agree to abide by all decisions and awards rendered in such proceedings. Such decisions and awards rendered by the arbitrator shall be final and conclusive. All such controversies, claims or disputes shall be settled in this manner in lieu of any action at law or equity; provided, however, that nothing in this subsection shall be construed as precluding the bringing of an action for injunctive relief or specific performance as provided in this Agreement or the Restrictive Covenant Agreement. This dispute resolution process and any arbitration hereunder shall be confidential and neither any Party nor the neutral arbitrator shall disclose the existence, contents or results of such process without the prior written consent of all Parties, except where necessary or compelled in a court to enforce this arbitration provision or an award from such arbitration or otherwise in a legal proceeding. If JAMS/Endispute no longer exists or is otherwise unavailable, the Parties agree that the American Arbitration Association ("AAA") shall administer the arbitration in accordance with its then-existing rules as modified by this subsection. In such event, all references herein to JAMS/Endispute shall mean AAA. Notwithstanding the foregoing, Executive and the Company each have the right to resolve any issue or dispute over intellectual property rights by court action instead of arbitration.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid or unenforceable under present or future laws effective during the Term, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible and be legal, valid and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on the advice of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Section 409A.

(i) *General.* The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith.

(ii) *Separation from Service.* Notwithstanding anything in this Agreement to the contrary, any compensation or benefits payable under this Agreement that is designated under this Agreement as payable upon Executive's termination of employment shall be payable only upon Executive's "separation from service" with the Company within the meaning of Section 409A (a "Separation from Service") and, except as provided below, any such compensation or benefits described in Section 4 shall not be paid, or, in the case of installments, shall not commence payment, until the sixtieth (60th) day following Executive's Separation from Service (the "First Payment Date"). Any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's Separation from Service but for the preceding sentence shall be paid to Executive on the First Payment Date and the remaining payments shall be made as provided in this Agreement.

(iii) *Specified Employee.* Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(iv) *Expense Reimbursements.* To the extent that any reimbursements under this Agreement are subject to Section 409A, any such reimbursements payable to Executive shall be paid to Executive no later than December 31 of the year following the year in which the expense was incurred. The Executive will submit Executive's reimbursement request promptly following the date the expense is incurred, and the amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year, other than medical expenses referred to in Section 105(b) of the Code. Executive's right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

(v) *Installments.* Executive's right to receive any installment payments under this Agreement, including without limitation any continuation salary payments that are payable on Company payroll dates, shall be treated as a right to receive a series of separate payments and, accordingly, each such installment payment shall at all times be considered a separate and distinct payment as permitted under Section 409A. Except as otherwise permitted under Section 409A, no payment hereunder shall be accelerated or deferred unless such acceleration or deferral would not result in additional tax or interest pursuant to Section 409A.

10. Executive Acknowledgement.

Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date first written above.

LYRA THERAPEUTICS, INC.

By: /s/ R. Don Elsey
Name: R. Don Elsey
Title: Chief Financial Officer

EXECUTIVE

/s/ Maria Palasis
Maria Palasis

[Signature Page to Employment Agreement]

EXHIBIT A

Separation Agreement and Release

This Separation Agreement and Release (this "Release") is made by and between Maria Palasis ("Executive") and Lyra Therapeutics, Inc. (the "Company") (collectively referred to as the "Parties" or individually referred to as a "Party"). Capitalized terms used but not defined in this Release shall have the meanings set forth in the Employment Agreement (as defined below).

WHEREAS, the Parties have previously entered into that certain Employment Agreement, dated as of April 27, 2020 (the "Employment Agreement") and the Restrictive Covenant Agreement (as defined in the Employment Agreement); and

WHEREAS, in connection with Executive's termination of employment with the Company or a subsidiary or affiliate of the Company effective _____, 20__, the Parties wish to resolve any and all disputes, claims, complaints, grievances, charges, actions, petitions and demands that Executive may have against the Company and any of the Releasees as defined below, including, but not limited to, any and all claims arising out of or in any way related to Executive's employment with or separation from the Company or its subsidiaries or affiliates but, for the avoidance of doubt, nothing herein will be deemed to release any rights or remedies in connection with Executive's ownership of vested equity securities of the Company, vested benefits or Executive's right to indemnification by the Company or any of its affiliates pursuant to contract or applicable law (collectively, the "Retained Claims").

NOW, THEREFORE, in consideration of the severance payments and benefits described in Section 4 of the Employment Agreement, which, pursuant to the Employment Agreement, are conditioned on Executive's execution and non-revocation of this Release, and in consideration of the mutual promises made herein, the Company and Executive hereby agree as follows:

1. Severance Payments and Benefits; Salary and Benefits. The Company agrees to provide Executive with the severance payments and benefits described in Section [4(b)][4(c)] of the Employment Agreement, payable at the times set forth in, and subject to the terms and conditions of, the Employment Agreement. In addition, to the extent not already paid, and subject to the terms and conditions of the Employment Agreement, the Company shall pay or provide to Executive all other payments or benefits described in Section 3(c) of the Employment Agreement, subject to and in accordance with the terms thereof. The severance payments and benefits described in Section [4(b)][4(c)] of the Employment Agreement shall be provided in lieu of any Garden Leave payment (as such term is used in the Restrictive Covenants Agreement) and Executive will not be eligible to receive any Garden Leave payment.

2. Release of Claims. Executive agrees that, other than with respect to the Retained Claims, the foregoing consideration represents settlement in full of all outstanding obligations owed to Executive by the Company, any of its direct or indirect subsidiaries and affiliates and any of its or their current and former officers, directors, equityholders, managers, employees, agents, investors, attorneys, shareholders, administrators, affiliates, benefit plans, plan administrators, insurers, trustees, divisions, subsidiaries, predecessor and successor corporations and assigns (collectively, the "Releasees"). Executive, on Executive's own behalf and on behalf of any of Executive's affiliated companies or entities and any of their respective heirs, family members, executors, agents and assigns, other than with respect to the

Retained Claims, hereby and forever releases the Releasees from, and agrees not to sue concerning, or in any manner to institute, prosecute or pursue, any claim, complaint, charge, duty, obligation or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Executive may possess against any of the Releasees arising from any omissions, acts, facts or damages that have occurred up until and including the date Executive signs this Release, including, without limitation:

(a) any and all claims relating to or arising from Executive's employment or service relationship with the Company or any of its direct or indirect subsidiaries or affiliates and the termination of that relationship;

(b) any and all claims relating to, or arising from, Executive's right to purchase, or actual purchase of any shares of stock or other equity interests of the Company or any of its affiliates, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state law and securities fraud under any state or federal law;

(c) any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; harassment; retaliation; breach of contract, both express and implied; breach of covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; 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; conversion; and disability benefits;

(d) 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; the Civil Rights Act of 1991; the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Equal Pay Act; the Fair Labor Standards Act; the Fair Credit Reporting Act; the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; the Employee Retirement Income Security Act of 1974; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act; the Sarbanes-Oxley Act of 2002; the Massachusetts Fair Employment Practices Act, M.G.L. c. 151B, § 1 et seq.; the Massachusetts Civil Rights Act, M.G.L. c. 12, §§ IIH and 111; the Massachusetts Equal Rights Act, M.G.L. c. 93, § 102 and M.G.L. c. 214, § IC; the Massachusetts Labor and Industries Act, M.G.L. c. 149, § 1 et seq.; the Massachusetts Privacy Act, M.G.L. c. 214, § 1B; and the Massachusetts Maternity Leave Act, M.G.L. c. 49, § 105D;

(e) any and all claims for violation of the federal or any state constitution;

(f) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

(g) any claim for any loss, cost, damage or expense arising out of any dispute over the non-withholding or other tax treatment of any of the proceeds received by Executive as a result of this Release;

(h) any and all claims arising out of the wage and hour and wage payments laws and regulations of the state or states in which Executive has provided service to the Company or any of its affiliates (including without limitation the Massachusetts Payment of Wages Law); and

(i) any and all claims for attorneys' fees and costs.

Executive agrees that the release set forth in this section shall be and remain in effect in all respects as a complete general release as to the matters released. This Release does not release claims that cannot be released as a matter of law, including, but not limited to, Executive's right to report possible violations of federal law or regulation to any governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation and any right to receive an award for information provided thereunder, Executive's right to file a charge with or participate in a charge by the Equal Employment Opportunity Commission, or any other local, state or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, against the Company for discrimination (with the understanding that Executive's release of claims herein bars Executive from recovering such monetary relief from the Company or any Releasee for any alleged discriminatory treatment), claims for unemployment compensation or any state disability insurance benefits pursuant to the terms of applicable state law, claims to continued participation in certain of the Company's group benefit plans pursuant to the terms and conditions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, claims to any benefit entitlements vested as the date of separation of Executive's employment, pursuant to written terms of any employee benefit plan of the Company or its affiliates and Executive's right under applicable law and any Retained Claims. This Release further does not release claims for breach of Section 3(c) or Section 4 of the Employment Agreement.

3. Acknowledgment of Waiver of Claims under ADEA. Executive understands and acknowledges that Executive is waiving and releasing any rights Executive may have under the Age Discrimination in Employment Act of 1967 ("ADEA"), and that this waiver and release is knowing and voluntary. Executive understands and agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the date Executive signs this Release. Executive understands and acknowledges that the consideration given for this waiver and release is in addition to anything of value to which Executive was already entitled. Executive further understands and acknowledges that Executive has been advised by this writing that: (a) Executive should consult with an attorney prior to executing this Release; (b) Executive has [twenty-one (21)][forty-five (45)] days within which to consider this Release, and the Parties agree that such time period to review this Release shall not be extended upon any material or immaterial changes to this Release; (c) Executive has seven (7) business days following Executive's execution of this Release to revoke this Release pursuant to written notice to the General Counsel of the Company; (d) this Release shall not be effective until after the revocation period has expired; and (e) nothing in this Release prevents or precludes Executive from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs for doing so, unless specifically authorized by federal law. In the event Executive signs this Release and returns it to the Company in less than the [twenty-one (21)][forty-five (45)] day period identified above, Executive hereby acknowledges that Executive has freely and voluntarily chosen to waive the time period allotted for considering this Release.

4. Restrictive Covenants. Executive acknowledges that Executive remains bound by the Restrictive Covenants Agreement, which is incorporated by reference herein as if re-executed along with this Release.

5. Severability. In the event that any provision or any portion of any provision hereof or any surviving agreement made a part hereof becomes or is declared by a court of competent jurisdiction or arbitrator to be illegal, unenforceable or void, this Release shall continue in full force and effect without said provision or portion of provision.

6. No Oral Modification. This Release may only be amended in a writing signed by Executive and a duly authorized officer of the Company.

7. Governing Law; Dispute Resolution. This Release shall be subject to the provisions of Sections 9(a), 9(c) and 9(h) of the Employment Agreement.

8. Effective Date. Executive understands that this Release shall become effective, irrevocable, and binding upon Executive on the day following the seventh (7th) business day from the date upon which Executive signs this Release, so long as Executive has not revoked it within the time period and in the manner specified in Section 3 above. Executive further understands that Executive will not be given any severance benefits under the Agreement unless this Release becomes effective pursuant to its terms.

9. Voluntary Execution of Agreement. Executive understands and agrees that Executive executed this Release voluntarily, without any duress or undue influence on the part or behalf of the Company or any third party, with the full intent of releasing all of Executive's claims against the Company and any of the other Releasees. Executive acknowledges that: (a) Executive has read this Release; (b) Executive has not relied upon any representations or statements made by the Company that are not specifically set forth in this Release; (c) Executive has been represented in the preparation, negotiation and execution of this Release by legal counsel of Executive's own choice or has elected not to retain legal counsel; (d) Executive understands the terms and consequences of this Release and of the releases it contains; and (e) Executive is fully aware of the legal and binding effect of this Release.

IN WITNESS WHEREOF, the Parties have executed this Release on the respective dates set forth below.

EXECUTIVE

Dated: _____

_____
Maria Palasis

LYRA THERAPEUTICS, INC.

Dated: _____

By: _____
Name:
Title:

Exhibit 10.9

Employment Agreement

This Employment Agreement (this "Agreement"), dated as of April 27, 2020, is made by and between Lyra Therapeutics, Inc., a Delaware corporation (together with any successor thereto, the "Company"), and Don Elsey ("Executive") (collectively referred to herein as the "Parties" or individually referred to as a "Party").

RECITALS

A. It is the desire of the Company to assure itself of the services of Executive as of the Effective Date and thereafter by entering into this Agreement.

B. Executive and the Company mutually desire that Executive provide services to the Company on the terms herein provided.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements set forth below, the Parties hereto agree as follows:

1. Employment.

(a) General. Effective on the consummation of the Company's initial public offering of stock pursuant to an effective registration statement filed under the Securities Act of 1933, as amended (the "Effective Date"), the Company shall employ Executive, and Executive shall be employed by the Company, for the period and in the positions set forth in this Section 1, and subject to the other terms and conditions herein provided.

(b) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be "at-will," as defined under applicable law, and that Executive's employment with the Company may be terminated by either Party at any time for any or no reason (subject to the notice requirements of Section 3(b)). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly authorized officer of the Company. If Executive's employment terminates for any reason, Executive shall not be entitled to any payments, benefits, damages, award or compensation other than as provided in this Agreement or otherwise agreed to in writing by the Company or as provided by applicable law. The term of this Agreement (the "Term") shall commence on the Effective Date and end on the date this Agreement is terminated under Section 3.

(c) Positions and Duties. During the Term, Executive shall serve as Chief Financial Officer of the Company, with such responsibilities, duties and authority normally associated with such position and as may from time to time be assigned to Executive by the Chief Executive Officer of the Company. Executive shall devote substantially all of Executive's working time and efforts to the business and affairs of the Company (which shall include service to its affiliates, if applicable) and shall not engage in outside business activities (including serving on outside boards or committees) without the consent of the Board of Directors of the Company or an authorized committee of the thereof (in either case, the "Board"), provided that Executive shall be permitted to (i) manage Executive's personal, financial and legal affairs, (ii) participate in trade associations, and (iii) serve on the board of directors of not-for-profit or tax-

exempt charitable organizations, in each case, subject to compliance with this Agreement and provided that such activities do not materially interfere with Executive's performance of Executive's duties and responsibilities hereunder. Executive agrees to observe and comply with the rules and policies of the Company as adopted by the Company from time to time, in each case, as amended from time to time, and as delivered or made available to Executive (collectively, the "Policies" and, each, a "Policy").

2. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at a rate of $375,000 per annum, which shall be paid in accordance with the customary payroll practices of the Company and shall be pro-rated for partial years of employment. Such annual base salary shall be reviewed (and may be adjusted) from time to time by the Board (such annual base salary, as it may be adjusted from time to time, the "Annual Base Salary").

(b) Annual Cash Bonus Opportunity. During the Term, Executive will be eligible to participate in an annual incentive program established by the Board. Executive's annual incentive compensation under such incentive program (the "Annual Bonus") shall be targeted at 40% of Executive's Annual Base Salary (such target, as may be increased by the Board from time to time, the "Target Annual Bonus"). The Annual Bonus payable under the incentive program shall be based on the achievement of performance goals to be determined by the Board. The payment of any Annual Bonus pursuant to the incentive program shall be subject to Executive's continued employment with the Company through the date of payment, except as otherwise provided in Section 4(b).

(c) Benefits. During the Term, Executive shall be eligible to participate in employee benefit plans, programs and arrangements of the Company (including medical, dental and 401(k) plans), subject to the terms and eligibility requirements thereof and as such plans, programs and arrangements may be amended from time to time. In no event shall Executive be eligible to participate in any severance plan or program of the Company, except as set forth in Section 4 of this Agreement.

(d) Vacation. During the Term, Executive shall be entitled to paid personal leave in accordance with the Company's Policies. Any vacation shall be taken at the reasonable and mutual convenience of the Company and Executive.

(e) Business Expenses. During the Term, the Company shall reimburse Executive for all reasonable travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's expense reimbursement Policy. Notwithstanding the foregoing, during the period beginning on the Effective Date and ending on December 31, 2020, and thereafter subject to renewal at the Board's sole discretion, the Company shall (i) reimburse Executive for Executive's reasonable travel expenses from Executive's home in Maryland to the Company's offices in Massachusetts, (ii) provide Executive with the use of a corporate apartment while working in Massachusetts that is reasonably close in proximity to the Company's Massachusetts offices and (iii) reimburse Executive for all income and employment taxes incurred by Executive as a result of payments and benefits provided to Executive under this sentence, including under this clause (iii); provided that the sum of the amount of any such reimbursements and the cost to the Company of providing such corporate apartment shall not exceed $75,000. Executive will submit requests for reimbursement and reasonably requested supporting documentation to the Company promptly following the date Executive incurs the related expense. All reimbursements payable to Executive under this Section shall be paid promptly following receipt of such requests and supporting documentation and no later than December 31 of the year following the year in which the expense was incurred. For the avoidance of doubt, travel expenses shall not include meals, ground transportation between the corporate apartment and the Company's office or other incidental expenses.

(f) Key Person Insurance. At any time during the Term, the Company shall have the right (but not the obligation) to insure the life of Executive for the Company's sole benefit. The Company shall have the right to determine the amount of insurance and the type of policy. Executive shall reasonably cooperate with the Company in obtaining such insurance by submitting to physical examinations, by supplying all information reasonably required by any insurance carrier and by executing all necessary documents reasonably required by any insurance carrier, provided that any information provided to an insurance company or broker shall not be provided to the Company without the prior written authorization of Executive. Executive shall incur no financial obligation by executing any required document and shall have no interest in any such policy.

3. Termination.

Both Executive's employment hereunder and the Term may be terminated by the Company or Executive, as applicable, without any breach of this Agreement under the following circumstances:

(a) Circumstances.

(i) *Death*. Executive's employment hereunder shall terminate upon Executive's death.

(ii) *Disability*. If Executive has incurred a Disability, as defined below, the Company may terminate Executive's employment.

(iii) *Termination for Cause*. The Company may terminate Executive's employment for Cause, as defined below.

(iv) *Termination without Cause*. The Company may terminate Executive's employment without Cause.

(v) *Resignation from the Company with Good Reason.* Executive may resign Executive's employment with the Company with Good Reason, as defined below.

(vi) *Resignation from the Company without Good Reason*. Executive may resign Executive's employment with the Company for any reason other than Good Reason or for no reason.

(b) Notice of Termination. Any termination of Executive's employment by the Company or by Executive under this Section 3 (other than termination pursuant to Section 3(a)(i)) shall be communicated by a written notice to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, if applicable, and (iii) specifying a Date of Termination (as defined below) which, if submitted by Executive, shall be at least thirty (30) days following the date of such notice (a "Notice of Termination"); *provided*, *however*, that in the event that Executive delivers a Notice of Termination to the Company, the Company may, in its sole discretion, change the Date of Termination to any date that occurs following the date of the Company's receipt of such Notice of Termination and is prior to the date specified in such Notice of Termination, but the termination will still be considered a resignation by Executive. A Notice of Termination submitted by the Company may provide for a Date of Termination on the date Executive receives the Notice of Termination, or any date thereafter elected by the Company. The failure by either Party to set forth in the Notice of Termination any fact or circumstance which contributes to a showing of Cause or Good Reason shall not waive any right of the Party hereunder or preclude the Party from asserting such fact or circumstance in enforcing the Party's rights hereunder.

(c) Company Obligations upon Termination. Upon termination of Executive's employment pursuant to any of the circumstances listed in this Section 3, Executive (or Executive's estate) shall be entitled to receive the sum of: (i) the portion of Executive's Annual Base Salary earned through the Date of Termination, but not yet paid to Executive; (ii) any expense reimbursements owed to Executive pursuant to Section 2(e); and (iii) any amount accrued and arising from Executive's participation in, or benefits accrued under any employee benefit plans, programs or arrangements, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs or arrangements (collectively, the "Company Arrangements"). Except as otherwise expressly required by law (e.g., the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA")) or as specifically provided herein, all of Executive's rights to salary, severance, benefits, bonuses and other compensatory amounts hereunder (if any) shall cease upon the termination of Executive's employment hereunder. In the event that Executive's employment is terminated by the Company for any reason, Executive's sole and exclusive remedy shall be to receive the payments and benefits described in this Section 3(c) or Section 4, as applicable.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and directorships, if any, then held with the Company or any of its subsidiaries.

4. Severance Payments.

(a) Termination for Cause, or Termination Upon Death, Disability or Resignation from the Company Without Good Reason. If Executive's employment shall terminate as a result of Executive's death pursuant to Section 3(a)(i), as a result of Disability pursuant to Section 3(a)(ii), for Cause pursuant to Section 3(a)(iii) or for Executive's resignation from the Company without Good Reason pursuant to Section 3(a)(iv), then Executive shall not be entitled to any severance payments or benefits, except as provided in Section 3(c).

(b) Termination without Cause, or Resignation from the Company with Good Reason. If Executive's employment terminates without Cause pursuant to Section 3(a)(iv), or pursuant to Section 3(a)(v) due to Executive's resignation with Good Reason, then, subject to Executive signing on or before the twenty-first (21st) day following Executive's Separation from Service (as defined below) or in the event that such Separation from Service is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967, as amended) on or before the forty-fifth (45th) day following Executive's Separation from Service, and not revoking, a release of claims substantially in the form attached as Exhibit A to this Agreement (the "Release"), and Executive's continued compliance with Section 5, Executive shall receive, in addition to payments and benefits set forth in Section 3(c), the following:

(i) an amount in cash equal to 0.75 times the Annual Base Salary, payable in the form of salary continuation in regular installments over the nine-month period following the date of Executive's Separation from Service (the "Severance Period") in accordance with the Company's normal payroll practices;

(ii) to the extent unpaid as of the Date of Termination, an amount of cash equal to any Annual Bonus earned by Executive for the Company's fiscal year prior to the fiscal year in which the Date of Termination occurs, as determined by the Board in its discretion based upon actual performance achieved, which Annual Bonus, if any, shall be paid to Executive in the fiscal year in which the Date of Termination occurs when bonuses for such prior fiscal year are paid in the ordinary course to actively employed senior executives of the Company; and

(iii) if Executive timely elects to receive continued medical, dental or vision coverage under one or more of the Company's group medical, dental or vision plans pursuant to COBRA, then the Company shall directly pay, or reimburse Executive for, the COBRA premiums for Executive and Executive's covered dependents under such plans, less the amount Executive would have had to pay to receive such coverage as an active employee based on the cost sharing levels in effect on the Date of Termination, during the period commencing on Executive's Separation from Service and ending upon the earliest of (X) the last day of the Severance Period, (Y) the date that Executive and/or Executive's covered dependents become no longer eligible for COBRA or (Z) the date Executive becomes eligible to receive medical, dental or vision coverage, as applicable, from a subsequent employer (and Executive agrees to promptly notify the Company of such eligibility). Notwithstanding the foregoing, if the Company determines in its sole discretion that it cannot provide the foregoing benefit without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act) or incurring an excise tax, the Company shall in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue Executive's and Executive's covered dependents' group health coverage in effect on the Date of Termination (which amount shall be based on the premium for the first month of COBRA coverage), less the amount Executive would have had to pay to receive group health coverage as an active employee for Executive and his or her covered dependents based on the cost sharing levels in effect on the Date of Termination, which payments shall be made regardless of whether Executive elects COBRA continuation coverage and shall commence in the month following the month in which the Date of Termination occurs and shall end on the earliest of (X) the last day of the Severance Period, (Y) the date that Executive and/or Executive's covered dependents become no longer eligible for COBRA or (Z) the date Executive becomes eligible to receive healthcare coverage from a subsequent employer (and Executive agrees to promptly notify the Company of such eligibility).

(c) Change in Control. In lieu of the payments and benefits set forth in Section 4(b), in the event Executive's employment terminates without Cause pursuant to Section 3(a)(iv), or due to Executive's resignation with Good Reason pursuant to Section 3(a)(v), in either case, within three (3) months prior or twelve (12) months following the date of a Change in Control, subject to Executive signing on or before the twenty-first (21st) day following Executive's Separation from Service or in the event that such Separation from Service is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967, as amended) on or before the forty-fifth (45th) day following Executive's Separation from Service, and not revoking, the Release, Executive shall receive, in addition to the payments and benefits set forth in Section 3(c), the following:

(i) an amount in cash equal to one times the sum of (A) the Annual Base Salary plus (B) the Target Annual Bonus, payable in equal installments over the 12-month period following the date of Executive's Separation from Service (the "CIC Severance Period") in accordance with the Company's normal payroll practices;

(ii) the payment set forth in Section 4(b)(ii);

(iii) the benefits set forth in Section 4(b)(iii), provided that the "Severance Period" will mean the CIC Severance Period; and

(iv) all unvested equity or equity-based awards held by Executive under any Company equity compensation plans that vest solely based on the passage of time shall immediately become 100% vested (for the avoidance of doubt, with any such awards that vest in whole or in part based on the attainment of performance-vesting conditions being governed by the terms of the applicable award agreement).

(d) Survival. Notwithstanding anything to the contrary in this Agreement, the provisions of Sections 5 through 9 will survive the termination of Executive's employment and the termination of the Term.

5. Restrictive Covenants. Executive acknowledges that Executive remains bound by the Employee Non-Disclosure, Non-Competition, Non-Solicitation and Inventions Agreement dated as of July 31, 2019 attached hereto as Exhibit B (the "Restrictive Covenant Agreement"). Executive acknowledges and agrees that the terms of the Restrictive Covenant Agreement are incorporated by reference herein as if re-executed along with this Agreement. Executive acknowledges that the provisions of the Restrictive Covenant Agreement will survive the termination of Executive's employment and the termination of the Term for the periods set forth in the Restrictive Covenant Agreement.

6. Assignment and Successors.

The Company may assign its rights and obligations under this Agreement to any of its affiliates or to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise), and may assign or encumber this Agreement and its rights hereunder as security for indebtedness of the Company and its affiliates. This Agreement shall be binding upon and inure to the benefit of the Company, Executive and their respective successors, assigns, personnel and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will or operation of law. Notwithstanding the foregoing, Executive shall be entitled, to the extent permitted under applicable law and applicable Company Arrangements, to select and change a beneficiary or beneficiaries to receive compensation hereunder following Executive's death by giving written notice thereof to the Company.

7. Certain Definitions.

(a) Cause. The Company shall have "Cause" to terminate Executive's employment hereunder upon:

(i) The Board's reasonable, good faith determination that Executive has refused to (A) substantially perform the duties associated with Executive's position with the Company or (B) carry out the reasonable and lawful instructions of the Board concerning duties or actions consistent with the Executive's position with the Company;

(ii) Executive's breach of a material provision of this Agreement that, to the extent capable of cure, has remained uncured for a period of thirty (30) days following written notice from the Company;

(iii) Executive's conviction, plea of no contest, plea of *nolo contendere*, or imposition of unadjudicated probation for any felony or crime involving moral turpitude;

(iv) Executive's unlawful use (including being under the influence) or possession of illegal drugs on the Company's (or any of its affiliate's) premises or while performing Executive's duties and responsibilities under this Agreement; or

(v) Executive's commission of any act of fraud, embezzlement, misappropriation, willful misconduct, or breach of fiduciary duty against the Company or any of its affiliates.

(b) Change in Control. "Change in Control" shall have the meaning set forth in the Lyra Therapeutics, Inc. 2020 Incentive Award Plan.

(c) Code. "Code" shall mean the Internal Revenue Code of 1986, as amended, and the regulations and guidance promulgated thereunder.

(d) Date of Termination. "Date of Termination" shall mean (i) if Executive's employment is terminated by Executive's death, the date of Executive's death; or (ii) if Executive's employment is terminated pursuant to Section 3(a)(ii) – (vi) either the date indicated in the Notice of Termination or the date specified by the Company pursuant to Section 3(b), whichever is earlier.

(e) Disability. "Disability" shall mean, at any time the Company or any of its affiliates sponsors a long-term disability plan for the Company's employees, "disability" as defined in such long-term disability plan for the purpose of determining a participant's eligibility for benefits, *provided, however*, if the long-term disability plan contains multiple definitions of disability, "Disability" shall refer to that definition of disability which, if Executive qualified for such disability benefits, would provide coverage for the longest period of time. The determination of whether Executive has a Disability shall be made by the person or persons required to make disability determinations under the long-term disability plan. At any time the Company does not sponsor a long-term disability plan for its employees, "Disability" shall mean Executive's inability to perform, with or without reasonable accommodation, the essential functions of Executive's positions hereunder for a total of three months during any six-month period as a result of incapacity due to mental or physical illness as determined by a physician selected by the Company or its insurers and acceptable to Executive or Executive's legal representative, with such agreement as to acceptability not to be unreasonably withheld or delayed. Any refusal by Executive to submit to a medical examination for the purpose of determining Disability shall be deemed to constitute conclusive evidence of Executive's Disability.

(f) Good Reason. For the sole purpose of determining Executive's right to severance payments and benefits as described above, Executive's resignation will be with "Good Reason" if Executive resigns within ninety (90) days after any of the following events, unless Executive consents in writing to the applicable event: (i) a reduction in Executive's Annual Base Salary or Target Annual Bonus, other than a reduction of twenty percent (20%) or less of Executive's Annual Base Salary implemented as part of an across the board, proportionate reduction of base salaries for other members of the Company's management team, (ii) a material decrease in Executive's authority or areas of responsibility as are commensurate with Executive's title or position with the Company, (iii) the relocation of Executive's primary office to a location more than fifty (50) miles from the Executive's primary office as of the date of this Agreement or (iv) the Company's breach of a material provision of this Agreement. Notwithstanding the foregoing, no Good Reason will have occurred unless and until Executive has: (a) provided the Company, within sixty (60) days of Executive's knowledge of the occurrence of the facts and circumstances underlying the Good Reason event, written notice stating with specificity the applicable facts and circumstances underlying such finding of Good Reason; (b) provided the Company with an opportunity to cure the same within thirty (30) days after the receipt of such notice; and (c) the Company shall have failed to so cure within such period.

8. Parachute Payments.

(a) Notwithstanding any other provisions of this Agreement or any Company equity plan or agreement, in the event that any payment or benefit by the Company or otherwise to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (all such payments and benefits, including the payments and benefits under Section 4 hereof, being hereinafter referred to as the "Total Payments"), would be subject (in whole or in part) to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Total Payments shall be reduced (in the order provided in Section 8(b)) to the minimum extent necessary to avoid the imposition of the Excise Tax on the Total Payments, but only if (i) the net amount of such Total Payments, as so reduced (and after subtracting the net amount of federal, state and local income and employment taxes on such reduced Total Payments and after taking into account the phase out of itemized deductions and personal exemptions attributable to such reduced Total Payments), is greater than or equal to (ii) the net amount of such Total Payments without such reduction (but after subtracting the net amount of federal, state and local income and employment taxes on such Total Payments and the amount of the Excise Tax to which Executive would be subject in respect of such unreduced Total Payments and after taking into account the phase out of itemized deductions and personal exemptions attributable to such unreduced Total Payments).

(b) The Total Payments shall be reduced in the following order: (i) reduction on a pro-rata basis of any cash severance payments that are exempt from Section 409A of the Code ("Section 409A"), (ii) reduction on a pro-rata basis of any non-cash severance payments or benefits that are exempt from Section 409A, (iii) reduction on a pro-rata basis of any other payments or benefits that are exempt from Section 409A and (iv) reduction of any payments or benefits otherwise payable to Executive on a pro-rata basis or such other manner that complies with Section 409A; provided, in case of clauses (ii), (iii) and (iv), that reduction of any payments attributable to the acceleration of vesting of Company equity awards shall be first applied to Company equity awards that would otherwise vest last in time.

(c) All determinations regarding the application of this Section 8 shall be made by an accounting firm or consulting group with experience in performing calculations regarding the applicability of Section 280G of the Code and the Excise Tax selected by the Company (the "Independent Advisors"). For purposes of determinations, no portion of the Total Payments shall be taken into account which, in the opinion of the Independent Advisors, (i) does not constitute a "parachute payment" within the meaning of Section 280G(b)(2) of the Code (including by reason of Section 280G(b)(4)(A) of the Code) or (ii) constitutes reasonable compensation for services actually rendered, within the meaning of Section 280G(b)(4)(B) of the Code, in excess of the "base amount" (as defined in Section 280G(b)(3) of the Code) allocable to such reasonable compensation. The costs of obtaining such determination and all related fees and expenses (including related fees and expenses incurred in any later audit) shall be borne by the Company.

(d) In the event it is later determined that a greater reduction in the Total Payments should have been made to implement the objective and intent of this Section 8, the excess amount shall be returned promptly by Executive to the Company.

9. Miscellaneous Provisions.

(a) Governing Law. This Agreement shall be governed, construed, interpreted and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the Commonwealth of Massachusetts without reference to the principles of conflicts of law of the Commonwealth of Massachusetts or any other jurisdiction that would result in the application of the laws of a jurisdiction other than the Commonwealth of Massachusetts, and where applicable, the laws of the United States.

(b) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(c) Notices. Any notice, request, claim, demand, document and other communication hereunder to any Party shall be effective upon receipt (or refusal of receipt) and shall be in writing and delivered personally or sent by facsimile or certified or registered mail, postage prepaid, as follows:

(i) If to the Company, to the Chief Executive Officer of the Company at the Company's headquarters,

(ii) If to Executive, to the last address that the Company has in its personnel records for Executive, or

(iii) At any other address as any Party shall have specified by notice in writing to the other Party.

(d) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile or PDF shall be deemed effective for all purposes.

(e) Entire Agreement. The terms of this Agreement, and the Restrictive Covenant Agreement incorporated herein by reference as set forth in Section 5, are intended by the Parties to be the final expression of their agreement with respect to the subject matter hereof and supersede all prior understandings and agreements, whether written or oral, including any prior employment offer letter or employment agreement between Executive and the Company. The Parties further intend that this Agreement shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative or other legal proceeding to vary the terms of this Agreement.

(f) Amendments; Waivers. This Agreement may not be modified, amended or terminated except by an instrument in writing, signed by Executive and a duly authorized officer of Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy or power hereunder will preclude any other or further exercise of any other right, remedy or power provided herein or by law or in equity.

(g) Construction. This Agreement shall be deemed drafted equally by both the Parties. Its language shall be construed as a whole and according to its fair meaning. Any presumption or principle that the language is to be construed against any Party shall not apply. The headings in this Agreement are only for convenience and are not intended to affect construction or interpretation. Any references to paragraphs, subparagraphs, sections or subsections are to those parts of this Agreement, unless the context clearly indicates to the contrary. Also, unless the context clearly indicates to the contrary, (i) the plural includes the singular and the singular includes the plural; (ii) "and" and "or" are each used both conjunctively and disjunctively; (iii) "any," "all," "each," or "every" means "any and all" and "each and every"; (iv) "includes" and "including" are each "without limitation"; (v) "herein," "hereof," "hereunder" and other similar compounds of the word "here" refer to the entire Agreement and not to any particular paragraph, subparagraph, section or subsection; and (vi) all pronouns and any variations thereof shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the identity of the entities or persons referred to may require.

(h) Arbitration. Any controversy, claim or dispute arising out of or relating to this Agreement, shall be settled solely and exclusively by a binding arbitration process administered by JAMS/Endispute in Boston, Massachusetts. Such arbitration shall be conducted in accordance with the then-existing JAMS/Endispute Rules of Practice and Procedure, with the following exceptions if in conflict: (i) one arbitrator who is a retired judge shall be chosen by JAMS/Endispute; (ii) each Party to the arbitration will pay one-half of the expenses and fees of the arbitrator, together with other expenses of the arbitration incurred or approved by the arbitrator; and (iii) arbitration may proceed in the absence of any Party if written notice (pursuant to the JAMS/Endispute rules and regulations) of the proceedings has been given to such Party. Each Party shall bear its own attorney's fees and expenses; provided that the arbitrator may assess the prevailing Party's fees and costs against the non-prevailing Party as part of the arbitrator's award. The Parties agree to abide by all decisions and awards rendered in such proceedings. Such decisions and awards rendered by the arbitrator shall be final and conclusive. All such controversies, claims or disputes shall be settled in this manner in lieu of any action at law or equity; provided, however, that nothing in this subsection shall be construed as precluding the bringing of an action for injunctive relief or specific performance as provided in this Agreement or the Restrictive Covenant Agreement. This dispute resolution process and any arbitration hereunder shall be confidential and neither any Party nor the neutral arbitrator shall disclose the existence, contents or results of such process without the prior written consent of all Parties, except where necessary or compelled in a court to enforce this arbitration provision or an award from such arbitration or otherwise in a legal proceeding. If JAMS/Endispute no longer exists or is otherwise unavailable, the Parties agree that the American Arbitration Association ("AAA") shall administer the arbitration in accordance with its then-existing rules as modified by this subsection. In such event, all references herein to JAMS/Endispute shall mean AAA. Notwithstanding the foregoing, Executive and the Company each have the right to resolve any issue or dispute over intellectual property rights by court action instead of arbitration.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid or unenforceable under present or future laws effective during the Term, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible and be legal, valid and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on the advice of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Section 409A.

(i) *General*. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith.

(ii) *Separation from Service.* Notwithstanding anything in this Agreement to the contrary, any compensation or benefits payable under this Agreement that is designated under this Agreement as payable upon Executive's termination of employment shall be payable only upon Executive's "separation from service" with the Company within the meaning of Section 409A (a "Separation from Service") and, except as provided below, any such compensation or benefits described in Section 4 shall not be paid, or, in the case of installments, shall not commence payment, until the sixtieth (60th) day following Executive's Separation from Service (the "First Payment Date"). Any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's Separation from Service but for the preceding sentence shall be paid to Executive on the First Payment Date and the remaining payments shall be made as provided in this Agreement.

(iii) *Specified Employee.* Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(iv) *Expense Reimbursements.* To the extent that any reimbursements under this Agreement are subject to Section 409A, any such reimbursements payable to Executive shall be paid to Executive no later than December 31 of the year following the year in which the expense was incurred. The Executive will submit Executive's reimbursement request promptly following the date the expense is incurred, and the amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year, other than medical expenses referred to in Section 105(b) of the Code. Executive's right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

(v) *Installments.* Executive's right to receive any installment payments under this Agreement, including without limitation any continuation salary payments that are payable on Company payroll dates, shall be treated as a right to receive a series of separate payments and, accordingly, each such installment payment shall at all times be considered a separate and distinct payment as permitted under Section 409A. Except as otherwise permitted under Section 409A, no payment hereunder shall be accelerated or deferred unless such acceleration or deferral would not result in additional tax or interest pursuant to Section 409A.

10. Executive Acknowledgement.

Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date first written above.

LYRA THERAPEUTICS, INC.

By: /s/ Maria Palasis
Name: Maria Palasis
Title: President and Chief Executive Officer

EXECUTIVE

/s/ Don Elsey
Don Elsey

[Signature Page to Employment Agreement]

EXHIBIT A

Separation Agreement and Release

This Separation Agreement and Release (this "Release") is made by and between Don Elsey ("Executive") and Lyra Therapeutics, Inc. (the "Company") (collectively referred to as the "Parties" or individually referred to as a "Party"). Capitalized terms used but not defined in this Release shall have the meanings set forth in the Employment Agreement (as defined below).

WHEREAS, the Parties have previously entered into that certain Employment Agreement, dated as of April 27, 2020 (the "Employment Agreement") and that certain Employee Non-Disclosure, Non-Competition, Non-Solicitation and Inventions Agreement, dated as of July 31, 2019 (the "Restrictive Covenant Agreement"); and

WHEREAS, in connection with Executive's termination of employment with the Company or a subsidiary or affiliate of the Company effective _____, 20__, the Parties wish to resolve any and all disputes, claims, complaints, grievances, charges, actions, petitions and demands that Executive may have against the Company and any of the Releasees as defined below, including, but not limited to, any and all claims arising out of or in any way related to Executive's employment with or separation from the Company or its subsidiaries or affiliates but, for the avoidance of doubt, nothing herein will be deemed to release any rights or remedies in connection with Executive's ownership of vested equity securities of the Company, vested benefits or Executive's right to indemnification by the Company or any of its affiliates pursuant to contract or applicable law (collectively, the "Retained Claims").

NOW, THEREFORE, in consideration of the severance payments and benefits described in Section 4 of the Employment Agreement, which, pursuant to the Employment Agreement, are conditioned on Executive's execution and non-revocation of this Release, and in consideration of the mutual promises made herein, the Company and Executive hereby agree as follows:

1. Severance Payments and Benefits; Salary and Benefits. The Company agrees to provide Executive with the severance payments and benefits described in Section [4(b)][4(c)] of the Employment Agreement, payable at the times set forth in, and subject to the terms and conditions of, the Employment Agreement. In addition, to the extent not already paid, and subject to the terms and conditions of the Employment Agreement, the Company shall pay or provide to Executive all other payments or benefits described in Section 3(c) of the Employment Agreement, subject to and in accordance with the terms thereof. The severance payments and benefits described in Section [4(b)][4(c)] of the Employment Agreement shall be provided in lieu of any Garden Leave payment (as such term is used in the Restrictive Covenants Agreement) and Executive will not be eligible to receive any Garden Leave payment.

2. Release of Claims. Executive agrees that, other than with respect to the Retained Claims, the foregoing consideration represents settlement in full of all outstanding obligations owed to Executive by the Company, any of its direct or indirect subsidiaries and affiliates and any of its or their current and former officers, directors, equityholders, managers, employees, agents, investors, attorneys, shareholders, administrators, affiliates, benefit plans, plan administrators, insurers, trustees, divisions, subsidiaries, predecessor and successor corporations and assigns (collectively, the "Releasees"). Executive, on Executive's own behalf and on behalf of any of Executive's affiliated companies or entities and any of their respective heirs, family members, executors, agents and assigns, other than with respect to the

Retained Claims, hereby and forever releases the Releasees from, and agrees not to sue concerning, or in any manner to institute, prosecute or pursue, any claim, complaint, charge, duty, obligation or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Executive may possess against any of the Releasees arising from any omissions, acts, facts or damages that have occurred up until and including the date Executive signs this Release, including, without limitation:

(a) any and all claims relating to or arising from Executive's employment or service relationship with the Company or any of its direct or indirect subsidiaries or affiliates and the termination of that relationship;

(b) any and all claims relating to, or arising from, Executive's right to purchase, or actual purchase of any shares of stock or other equity interests of the Company or any of its affiliates, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state law and securities fraud under any state or federal law;

(c) any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; harassment; retaliation; breach of contract, both express and implied; breach of covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; 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; conversion; and disability benefits;

(d) 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; the Civil Rights Act of 1991; the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Equal Pay Act; the Fair Labor Standards Act; the Fair Credit Reporting Act; the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; the Employee Retirement Income Security Act of 1974; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act; the Sarbanes-Oxley Act of 2002; the Massachusetts Fair Employment Practices Act, M.G.L. c. 151B, § 1 et seq.; the Massachusetts Civil Rights Act, M.G.L. c. 12, §§ IIH and 111; the Massachusetts Equal Rights Act, M.G.L. c. 93, § 102 and M.G.L. c. 214, § IC; the Massachusetts Labor and Industries Act, M.G.L. c. 149, § 1 et seq.; the Massachusetts Privacy Act, M.G.L. c. 214, § 1B; and the Massachusetts Maternity Leave Act, M.G.L. c. 49, § 105D;

(e) any and all claims for violation of the federal or any state constitution;

(f) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

(g) any claim for any loss, cost, damage or expense arising out of any dispute over the non-withholding or other tax treatment of any of the proceeds received by Executive as a result of this Release;

(h) any and all claims arising out of the wage and hour and wage payments laws and regulations of the state or states in which Executive has provided service to the Company or any of its affiliates (including without limitation the Massachusetts Payment of Wages Law); and

(i) any and all claims for attorneys' fees and costs.

Executive agrees that the release set forth in this section shall be and remain in effect in all respects as a complete general release as to the matters released. This Release does not release claims that cannot be released as a matter of law, including, but not limited to, Executive's right to report possible violations of federal law or regulation to any governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation and any right to receive an award for information provided thereunder, Executive's right to file a charge with or participate in a charge by the Equal Employment Opportunity Commission, or any other local, state or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, against the Company for discrimination (with the understanding that Executive's release of claims herein bars Executive from recovering such monetary relief from the Company or any Releasee for any alleged discriminatory treatment), claims for unemployment compensation or any state disability insurance benefits pursuant to the terms of applicable state law, claims to continued participation in certain of the Company's group benefit plans pursuant to the terms and conditions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, claims to any benefit entitlements vested as the date of separation of Executive's employment, pursuant to written terms of any employee benefit plan of the Company or its affiliates and Executive's right under applicable law and any Retained Claims. This Release further does not release claims for breach of Section 3(c) or Section 4 of the Employment Agreement.

3. Acknowledgment of Waiver of Claims under ADEA. Executive understands and acknowledges that Executive is waiving and releasing any rights Executive may have under the Age Discrimination in Employment Act of 1967 ("ADEA"), and that this waiver and release is knowing and voluntary. Executive understands and agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the date Executive signs this Release. Executive understands and acknowledges that the consideration given for this waiver and release is in addition to anything of value to which Executive was already entitled. Executive further understands and acknowledges that Executive has been advised by this writing that: (a) Executive should consult with an attorney prior to executing this Release; (b) Executive has [twenty-one (21)][forty-five (45)] days within which to consider this Release, and the Parties agree that such time period to review this Release shall not be extended upon any material or immaterial changes to this Release; (c) Executive has seven (7) business days following Executive's execution of this Release to revoke this Release pursuant to written notice to the General Counsel of the Company; (d) this Release shall not be effective until after the revocation period has expired; and (e) nothing in this Release prevents or precludes Executive from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs for doing so, unless specifically authorized by federal law. In the event Executive signs this Release and returns it to the Company in less than the [twenty-one (21)][forty-five (45)] day period identified above, Executive hereby acknowledges that Executive has freely and voluntarily chosen to waive the time period allotted for considering this Release.

4. Restrictive Covenants. Executive acknowledges that Executive remains bound by the Restrictive Covenants Agreement, which is incorporated by reference herein as if re-executed along with this Release.

5. Severability. In the event that any provision or any portion of any provision hereof or any surviving agreement made a part hereof becomes or is declared by a court of competent jurisdiction or arbitrator to be illegal, unenforceable or void, this Release shall continue in full force and effect without said provision or portion of provision.

6. No Oral Modification. This Release may only be amended in a writing signed by Executive and a duly authorized officer of the Company.

7. Governing Law; Dispute Resolution. This Release shall be subject to the provisions of Sections 9(a), 9(c) and 9(h) of the Employment Agreement.

8. Effective Date. Executive understands that this Release shall become effective, irrevocable, and binding upon Executive on the day following the seventh (7th) business day from the date upon which Executive signs this Release, so long as Executive has not revoked it within the time period and in the manner specified in Section 3 above. Executive further understands that Executive will not be given any severance benefits under the Agreement unless this Release becomes effective pursuant to its terms.

9. Voluntary Execution of Agreement. Executive understands and agrees that Executive executed this Release voluntarily, without any duress or undue influence on the part or behalf of the Company or any third party, with the full intent of releasing all of Executive's claims against the Company and any of the other Releasees. Executive acknowledges that: (a) Executive has read this Release; (b) Executive has not relied upon any representations or statements made by the Company that are not specifically set forth in this Release; (c) Executive has been represented in the preparation, negotiation and execution of this Release by legal counsel of Executive's own choice or has elected not to retain legal counsel; (d) Executive understands the terms and consequences of this Release and of the releases it contains; and (e) Executive is fully aware of the legal and binding effect of this Release.

IN WITNESS WHEREOF, the Parties have executed this Release on the respective dates set forth below.

EXECUTIVE

Dated: _____

_____
Don Elsey

LYRA THERAPEUTICS, INC.

Dated: _____

By: _____
Name:
Title:

EXHIBIT B

Restrictive Covenant Agreement

[attached]

EMPLOYEE NON-DISCLOSURE, NON-COMPETITION, NON-SOLICITATION AND INVENTIONS AGREEMENT

This Confidentiality, Noncompetition, Nonsolicitation and Inventions Agreement ("**Agreement**") is made by and between **Lyra Therapeutics**, Inc. (f/k/a 480 Biomedical, Inc.), a Delaware corporation, or any of its predecessors, successors, subsidiaries or affiliates (collectively, the "Company") and R. Don Elsey ("Employee").

Recitals

Employee enters into this Agreement in connection with Employee's acceptance of employment with the Company.

Employee's acceptance of this Agreement is an express condition of Employee's employment with the Company, and is made by Employee in consideration of Garden Leave Pay as well as the Employee's employment, including the compensation, benefits and confidential information provided now and in the future to Employee by the Company, which Employee acknowledges are of significant benefit to Employee; and

The Company and Employee agree that this Agreement, including the noncompetition covenant set forth below, is no broader than necessary to protect the Company's trade secrets, confidential information and good will.

Agreements

In consideration of the above Recitals, which are incorporated herein, the promises and covenants below, and other valuable consideration, the receipt and adequacy of which is acknowledged, the parties agree as follows:

Term

This Agreement contains obligations that apply during Employee's employment and for specified periods after the date Employee's employment ends ("**Separation Date**"), regardless of the reason for separation or whether it was voluntary or involuntary, provided, however, that the Exclusive Commitment covenant set forth below shall not apply in the event the Company terminates the Employee's employment without Cause or if the Company includes the Employee in a reduction in force or layoff. For purposes of this Agreement, "Cause" shall mean any of the following: (i) conviction of the Employee of a felony or any other crime involving moral turpitude that is committed during the Employee's employment with the Company, including a plea of guilty or nolo contendre; (ii) commission by the Employee of a fraudulent or illegal act that causes harm to the business, operations or reputation of the Company; (iii) Employee's willful misconduct; (iv) Employee's material violation of this Agreement or the Company's written rules, policies or programs; (v) Employee's breach of any fiduciary duty to the Company (vi) Employee's gross negligence, neglect of duties, or theft; (vii) Employee's dishonesty,

embezzlement, or misappropriation of the Company's assets or property (tangible or intangible); (viii) willful failure or refusal of the Employee to perform his or her duties; (ix) the Employee's unauthorized disclosure of any trade secret or confidential information of the Company or any other act of disloyalty to the Company; (x) the commission of an act by the Employee which constitutes unfair competition with the Company or which induces any customer or supplier to breach a contract with the Company; or (xi) an act by the Employee which creates material adverse publicity for the Company.

Confidentiality

The Employee understands and agrees that the Company continually obtains and develops valuable proprietary and confidential information concerning its business, business relationships and financial affairs (the "Confidential Information") and valuable Biological Materials (as defined below) which may or will become known to the Employee in connection with the Employee's employment with the Company.

Employee acknowledges and agrees that all Biological Materials and all Confidential Information, whether or not in writing and whether or not labeled or identified as confidential or proprietary, are and shall remain the exclusive property of the Company or the third party providing such Biological Materials or Confidential Information to the Employee or the Company. By way of illustration, but not limitation, Confidential Information may include Inventions (as hereafter defined), trade secrets, technical information, know-how, research and development activities of the Company, product and marketing plans, customer and supplier information, apparatus, equipment, processes, systems, formulas, designs, non-public information about FDA proceedings, reports, tangible research materials, technology, business plans, forecasts and information disclosed to the Company or to the Employee by third parties of a proprietary or confidential nature or under an obligation of confidence. Confidential Information is contained in various media, including without limitation, patent applications, computer programs in object and/or source code, flow charts and other program documentation, manuals, plans, drawings, designs, technical specifications, laboratory notebooks, supplier and customer lists, internal financial data and other documents and records of the Company. As used herein "Biological Materials" shall include, without limitation, any and all reagents, substances, chemical compounds, subcellular constituents, cells or cell lines, organisms and progeny, mutants, derivatives or replications thereof or therefrom.

Employee further agrees that the Employee shall not, during the term of the Employee's employment and thereafter, publish, disclose or otherwise make available to any third party, other than employees of the Company, any Confidential Information or Biological Materials which become known to the Employee in connection with the Employee's employment by the Company except as expressly authorized in writing by the Company. The Employee also agrees that the Employee shall use such Confidential Information and Biological Materials which become known to the Employee in connection with the Employee's employment by the Company only in the performance of the Employee's duties for the Company and in accordance with any Company policies with respect to the protection of Confidential Information or Biological Materials. The Employee specifically agrees not to use such Confidential Information and Biological Materials which become known to me in connection with the Employee's employment by the Company for the Employee's own benefit or for the benefit of any other person or business entity.

Employee agrees to exercise all reasonable precautions to protect the integrity and confidentiality of Confidential Information and Biological Materials in the Employee's possession or control and not to remove any materials containing Confidential Information or Biological Materials which become known to the Employee in connection with the Employee's employment by the Company from the Company's premises except to the extent necessary to perform duties for and authorized by the Company in connection with the Employee's employment. Upon the termination of the Employee's employment for any reason, or at any time upon the Company's request, the Employee shall return immediately to the Company any and all Biological Materials and any materials containing any Confidential Information then in the Employee's possession or under the Employee's control.

Confidential Information shall not include information which (a) is or becomes generally known within the Company's industry through no fault of the Employee; (b) was known to the Employee at the time it was disclosed as evidenced by the Employee's written records at the time of disclosure; (c) is lawfully and in good faith made available to the Employee by a third party who did not derive it from the Company and who imposes no obligation of confidence on the Employee; or (d) is required to be disclosed by a governmental authority or by order of a court of competent jurisdiction, provided that such disclosure is subject to all applicable governmental or judicial protection available for like material and reasonable advance notice is given to the Company.

Assignment of Inventions

Employee agrees promptly to disclose to the Company any and all ideas, concepts, discoveries, inventions, developments, original works of authorship, software programs, software and systems documentation, trade secrets, technical data, know-how and Biological Materials that are conceived, devised, invented, developed or reduced to practice or tangible medium by the Employee, under the Employee's direction or jointly with others during any period that the Employee is employed or engaged by the Company, whether or not during normal working hours or on the premises of the Company, which relate, directly or indirectly, to the business of the Company and arise out of the Employee's employment with the Company (hereinafter "Inventions").

Employee hereby assigns to the Company all of the Employee's right, title and interest to the Inventions and any and all related patent rights, copyrights and applications and registrations therefor. During and after the Employee's employment, the Employee shall cooperate with the Company, at the Company's expense, in obtaining proprietary protection for the Inventions and the Employee shall execute all documents which the Company shall reasonably request in order to perfect the Company's rights in the Inventions. The Employee hereby appoints the Company the Employee's attorney to execute and deliver any such documents on the Employee's behalf in the event the Employee should fail or refuse to do so within a reasonable period following the Company's request. The Employee understands that, to the extent this Agreement shall be

construed in accordance with the laws of any state which limits the assignability to the Company of certain employee inventions, this Agreement shall be interpreted not to apply to any such invention which a court rules or the Company agrees is subject to such state limitation.

The Employee further represents that the attached Schedule A contains a complete list of all inventions made, conceived or first reduced to practice by the Employee, under the Employee's direction or jointly with others prior to the Employee's employment with the Company (''Prior Inventions") and which are not assigned to the Company hereunder. If there is no such Schedule A attached hereto, the Employee shall represent that there are no such Prior Inventions.

Other Agreements

The Employee hereby represents and warrants to the Company that, except as identified on Schedule B, the Employee is not bound by any agreement or any other previous or existing business relationship which conflicts with or prevents the full performance of the Employee's duties and obligations to the Company (including the Employee's duties and obligations under this or any other agreement with the Company) during the Employee's employment.

The Employee understands and acknowledges that the Company does not desire to acquire from the Employee any trade secrets, know-how or confidential business information the Employee may have acquired from others. Therefore, the Employee agrees during the Employee's employment with the Company, the Employee will not improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer, or any other person or entity with whom the Employee has an agreement or to whom the Employee owes a duty to keep such information in confidence. Those persons or entities with whom the Employee has such agreements or to whom the Employee owes such a duty are identified on Schedule B.

Exclusive Commitment

Subject to the limitation set forth above in the Term covenant, the Employee agrees that during the term of the Employee's employment with the Company and for a period of one year thereafter, unless the Employee breaches his or her fiduciary duty to the Company or misappropriates the Company's property in which case the restricted period shall be extended to two (2) years after the Employee's termination of or resignation from employment with the Company, the Employee shall not, without the Company's prior written consent, in any jurisdiction in which Employee provided services or had a material presence or influence on behalf of the Company during the final 2 years of Employee's employment, engage in any business or enterprise (whether as founder, owner, partner, officer, director, employee, consultant, investor, lender or otherwise, except as the holder of not more than 5% of the outstanding capital stock of a publicly-held company) whose primary area of business involves the field of biomaterials, materials delivery systems and technologies, drug-delivery systems and technologies and access devices related to products or technologies actively developed by 480 Biomedical, Inc. (the "Field") and which involves matters or products the Employee worked on or

obtained Confidential Information during his or her final two (2) years of Employment. Employee acknowledges and agrees that this Exclusive Commitment covenant is necessary since the Company's legitimate business interests cannot be adequately protected through any other form of alternative restrictive covenant, including without limitation the other restrictive covenants in this Agreement.

General Non-solicitation

The Employee agrees that during the Employee's employment with the Company and for a period of two (2) years after the termination or cessation of such employment for any reason, the Employee shall not, whether on Employee's behalf or on the behalf of any other person or entity, (i) solicit, divert or take away, or attempt to divert or take away, (directly or indirectly), the business or patronage of any of the clients, customers or accounts, or prospective clients, customers or accounts, of the Company that Employee worked on or supported, or about which Employee obtained, received or was provided access to Confidential Information; or (ii) encourage any client, customer or account, or prospective clients, customers or accounts of the Company to cease doing business with the Company or to terminate or limit an existing relationship or arrangement with the Company.

Non-solicitation of Employees

The Employee agrees that during the Employee's employment and for a period of two (2) years after the termination or cessation of my employment for any reason, the Employee shall not directly or indirectly recruit or solicit any employee of the Company, or induce or attempt to induce any employee of the Company to discontinue his or her employment relationship with the Company.

No Obligation of Continued Employment

The Employee understands and agrees that this Agreement does not constitute a contract of employment or create an obligation on the part of the Company to continue the Employee's employment with the Company. The Employee understands and agrees that the Employee's employment is "at will" and that the Employee's obligations under this Agreement shall not be affected by any change in the Employee's position, title or function with, or compensation, by the Company.

Consideration.

During the restricted period provided in the Exclusive Commitment covenant, the Company shall place the Employee on Garden Leave and pay the Employee an amount equal to 50% of the Employee's highest gross base salary during the two (2) year period leading up to the date that the Employee separated from the Company. The Garden Leave payment shall be paid in equal installments during the restricted period of the Exclusive Commitment covenant in accordance with the Company's then current payroll practices as established or modified from time to time, and shall be subject to all applicable withholdings and taxes. Employee acknowledges that the payment of this Garden Leave payment serves as consideration for the Exclusive Commitment covenant of this Agreement. If the Company elects not to impose the Exclusive Commitment covenant on the Employee, it shall notify the Employee within 7 days following the Employee's separation or termination from the Employer, and the Company shall have no obligation to pay the Garden Leave payment to the Employee.

General

This Agreement may not be assigned by either party except that the Company may assign this Agreement in connection with the merger, consolidation or sale of all or substantially all of its business or assets. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and other legal representatives and, to the extent that any assignment hereof is permitted hereunder, their assignees.

This Agreement supersedes all prior agreements, written or oral, with respect to the subject matter of this Agreement. This Agreement may be changed only by a written instrument signed by both parties hereto.

In the event that any one or more of the provisions contained herein shall, for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and all other provisions shall remain in lull force and effect. If any of the provisions of this Agreement is held to be excessively broad, it shall be reformed and construed by limiting and reducing it so as to be enforceable to the maximum extent permitted by law.

No delay or omission by the Company in exercising any right under this Agreement will operate as a waiver of that or any other right. A waiver or consent given by the Company on any occasion if effective only in that instance and will not be construed as a bar to or waiver of any right on any other occasion.

The Employee acknowledges and agrees that the restrictions contained in this Agreement are necessary for the protection of the business and goodwill of the Company, are consonant with public policy, and are reasonable for such purpose. The Employee further agrees that any breach of this Agreement by the Employee will cause irreparable damage to the Company and that in the in the event of such breach, the Company shall be entitled, in addition to monetary damages and to any other remedies available to the Company under this Agreement and at law, to equitable relief, including injunctive relief, and to payment by the Employee of all costs incurred by the Company in enforcing the provisions of this Agreement, including reasonable attorneys' fees, in such event without the necessity of first proving actual damages. To the extent permitted by law, the Employee agrees that should the Employee violate any obligation imposed on the Employee in this Agreement, the Employee shall continue to be bound by the obligation until a period equal to the term of such obligation has expired without violation of such obligation.

This Agreement shall be construed as a sealed instrument and shall in all events and for all purposes be governed by, and construed in accordance with, the laws of the Commonwealth of Massachusetts without regard to any choice of law principle that would dictate the application of the laws of another jurisdiction. Any action, suit or other legal proceeding pertaining to the Agreement shall have exclusive jurisdiction and venue in the Superior Court or Business Litigation Section of the Superior Court located in Suffolk

County, Boston, Massachusetts, regarding any judicial proceeding arising out of or related to this Agreement, and each party irrevocably consents to such exclusive jurisdiction and venue in those forums.

Employee has read and understands this Agreement; Right to Counsel's Review.

Employee acknowledges with execution of this Agreement that: (a) Employee was presented with this Agreement on the earlier of (i) the date of the Employee's offer letter of employment or (ii) 10 business days before the commencement of Employee's employment with the Company; (b) Employee has carefully read all of this Agreement's terms and agrees they are necessary for the reasonable protection of the Company's business; (c) The Company has been induced to employ Employee by Employee's representation that Employee will abide by and be bound by each of the covenants and restraints in this Agreement; and (d) each and every covenant and restraint in this Agreement is reasonable. Employee acknowledges that Employee has been advised by the Company that Employee is entitled to have this Agreement reviewed by counsel of Employee's choice prior to signing, and has either done so or elected to forgo such right.

HAVING READ AND FULLY UNDERSTOOD THIS AGREEMENT, a copy of which has been timely provided to the Employee, the parties execute this agreement.

LYRA THERAPEUTICS, INC.

/s/ Maria Palasis
Name

CEO
Title

7/31/19
Date

EMPLOYEE

/s/ R. Don Elsey
Name

7/25/2019
Date

SCHEDULE A
PRIOR INVENTIONS

The following is a complete list of all Prior Inventions

☒ No Prior Inventions

☐ See below for description of Prior Inventions

☐ Additional Sheets Attached

The Employee agrees that, if in the course of the Employee's employment with the Company, and without first notifying the Company in writing of the Employee's intention to do so, the Employee incorporates into a Company product, process or machine a Prior Invention owned by the Employee or in which the Employee has an interest, the Company shall automatically be granted and shall have a non-exclusive, royalty-free, irrevocable, transferable, perpetual world-wide license to make, have made, modify, use and sell such Prior Invention as part of, or in connection with, such product, process or machine.

SCHEDULE B
PRIOR COMMITMENTS

None

Employment Agreement

This Employment Agreement (this "Agreement"), dated as of April 27, 2020, is made by and between Lyra Therapeutics, Inc., a Delaware corporation (together with any successor thereto, the "Company"), and Laura Edgerly-Pflug ("Executive") (collectively referred to herein as the "Parties" or individually referred to as a "Party").

RECITALS

A. It is the desire of the Company to assure itself of the services of Executive as of the Effective Date and thereafter by entering into this Agreement.

B. Executive and the Company mutually desire that Executive provide services to the Company on the terms herein provided.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements set forth below, the Parties hereto agree as follows:

1. Employment.

(a) General. Effective on the consummation of the Company's initial public offering of stock pursuant to an effective registration statement filed under the Securities Act of 1933, as amended (the "Effective Date"), the Company shall employ Executive, and Executive shall be employed by the Company, for the period and in the positions set forth in this Section 1, and subject to the other terms and conditions herein provided.

(b) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be "at-will," as defined under applicable law, and that Executive's employment with the Company may be terminated by either Party at any time for any or no reason (subject to the notice requirements of Section 3(b)). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly authorized officer of the Company. If Executive's employment terminates for any reason, Executive shall not be entitled to any payments, benefits, damages, award or compensation other than as provided in this Agreement or otherwise agreed to in writing by the Company or as provided by applicable law. The term of this Agreement (the "Term") shall commence on the Effective Date and end on the date this Agreement is terminated under Section 3.

(c) Positions and Duties. During the Term, Executive shall serve as Senior Vice President of Technical Operations of the Company, with such responsibilities, duties and authority normally associated with such position and as may from time to time be assigned to Executive by the Chief Executive Officer of the Company. Executive shall devote substantially all of Executive's working time and efforts to the business and affairs of the Company (which shall include service to its affiliates, if applicable) and shall not engage in outside business activities (including serving on outside boards or committees) without the consent of the Board of Directors of the Company or an authorized committee of the thereof (in either case, the "Board"), provided that Executive shall be permitted to (i) manage Executive's personal, financial and legal affairs, (ii) participate in trade associations, and (iii) serve on the board of directors of not-for-profit or tax-exempt charitable organizations, in each case, subject to compliance with this Agreement and provided that such activities do not materially interfere with

Executive's performance of Executive's duties and responsibilities hereunder. Executive agrees to observe and comply with the rules and policies of the Company as adopted by the Company from time to time, in each case, as amended from time to time, and as delivered or made available to Executive (collectively, the "Policies" and, each, a "Policy").

2. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at a rate of $300,000 per annum, which shall be paid in accordance with the customary payroll practices of the Company and shall be pro-rated for partial years of employment. Such annual base salary shall be reviewed (and may be adjusted) from time to time by the Board (such annual base salary, as it may be adjusted from time to time, the "Annual Base Salary").

(b) Annual Cash Bonus Opportunity. During the Term, Executive will be eligible to participate in an annual incentive program established by the Board. Executive's annual incentive compensation under such incentive program (the "Annual Bonus") shall be targeted at 35% of Executive's Annual Base Salary (such target, as may be increased by the Board from time to time, the "Target Annual Bonus"). The Annual Bonus payable under the incentive program shall be based on the achievement of performance goals to be determined by the Board. The payment of any Annual Bonus pursuant to the incentive program shall be subject to Executive's continued employment with the Company through the date of payment, except as otherwise provided in Section 4(b).

(c) Benefits. During the Term, Executive shall be eligible to participate in employee benefit plans, programs and arrangements of the Company (including medical, dental and 401(k) plans), subject to the terms and eligibility requirements thereof and as such plans, programs and arrangements may be amended from time to time. In no event shall Executive be eligible to participate in any severance plan or program of the Company, except as set forth in Section 4 of this Agreement.

(d) Vacation. During the Term, Executive shall be entitled to paid personal leave in accordance with the Company's Policies. Any vacation shall be taken at the reasonable and mutual convenience of the Company and Executive.

(e) Business Expenses. During the Term, the Company shall reimburse Executive for all reasonable travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's expense reimbursement Policy.

(f) Key Person Insurance. At any time during the Term, the Company shall have the right (but not the obligation) to insure the life of Executive for the Company's sole benefit. The Company shall have the right to determine the amount of insurance and the type of policy. Executive shall reasonably cooperate with the Company in obtaining such insurance by submitting to physical examinations, by supplying all information reasonably required by any insurance carrier and by executing all necessary documents reasonably required by any insurance carrier, provided that any information provided to an insurance company or broker shall not be provided to the Company without the prior written authorization of Executive. Executive shall incur no financial obligation by executing any required document and shall have no interest in any such policy.

3. Termination.

Both Executive's employment hereunder and the Term may be terminated by the Company or Executive, as applicable, without any breach of this Agreement under the following circumstances:

(a) Circumstances.

(i) *Death*. Executive's employment hereunder shall terminate upon Executive's death.

(ii) *Disability*. If Executive has incurred a Disability, as defined below, the Company may terminate Executive's employment.

(iii) *Termination for Cause*. The Company may terminate Executive's employment for Cause, as defined below.

(iv) *Termination without Cause*. The Company may terminate Executive's employment without Cause.

(v) *Resignation from the Company with Good Reason.* Executive may resign Executive's employment with the Company with Good Reason, as defined below.

(vi) *Resignation from the Company without Good Reason*. Executive may resign Executive's employment with the Company for any reason other than Good Reason or for no reason.

(b) Notice of Termination. Any termination of Executive's employment by the Company or by Executive under this Section 3 (other than termination pursuant to Section 3(a)(i)) shall be communicated by a written notice to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, if applicable, and (iii) specifying a Date of Termination (as defined below) which, if submitted by Executive, shall be at least thirty (30) days following the date of such notice (a "Notice of Termination"); *provided, however*, that in the event that Executive delivers a Notice of Termination to the Company, the Company may, in its sole discretion, change the Date of Termination to any date that occurs following the date of the Company's receipt of such Notice of Termination and is prior to the date specified in such Notice of Termination, but the termination will still be considered a resignation by Executive. A Notice of Termination submitted by the Company may provide for a Date of Termination on the date Executive receives the Notice of Termination, or any date thereafter elected by the Company. The failure by either Party to set forth in the Notice of Termination any fact or circumstance which contributes to a showing of Cause or Good Reason shall not waive any right of the Party hereunder or preclude the Party from asserting such fact or circumstance in enforcing the Party's rights hereunder.

(c) Company Obligations upon Termination. Upon termination of Executive's employment pursuant to any of the circumstances listed in this Section 3, Executive (or Executive's estate) shall be entitled to receive the sum of: (i) the portion of Executive's Annual Base Salary earned through the Date of Termination, but not yet paid to Executive; (ii) any expense reimbursements owed to Executive pursuant to Section 2(e); and (iii) any amount accrued and arising from Executive's participation in, or benefits accrued under any employee benefit plans, programs or arrangements, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs or arrangements (collectively, the "Company Arrangements"). Except as otherwise expressly required by law (e.g., the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA")) or as specifically provided herein, all of Executive's rights to salary, severance, benefits, bonuses and other compensatory amounts hereunder (if any) shall cease upon the termination of Executive's employment hereunder. In the event that Executive's employment is terminated by the Company for any reason, Executive's sole and exclusive remedy shall be to receive the payments and benefits described in this Section 3(c) or Section 4, as applicable.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and directorships, if any, then held with the Company or any of its subsidiaries.

4. Severance Payments.

(a) Termination for Cause, or Termination Upon Death, Disability or Resignation from the Company Without Good Reason. If Executive's employment shall terminate as a result of Executive's death pursuant to Section 3(a)(i), as a result of Disability pursuant to Section 3(a)(ii), for Cause pursuant to Section 3(a)(iii) or for Executive's resignation from the Company without Good Reason pursuant to Section 3(a)(iv), then Executive shall not be entitled to any severance payments or benefits, except as provided in Section 3(c).

(b) Termination without Cause, or Resignation from the Company with Good Reason. If Executive's employment terminates without Cause pursuant to Section 3(a)(iv), or pursuant to Section 3(a)(v) due to Executive's resignation with Good Reason, then, subject to Executive signing on or before the twenty-first (21st) day following Executive's Separation from Service (as defined below) or in the event that such Separation from Service is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967, as amended) on or before the forty-fifth (45th) day following Executive's Separation from Service, and not revoking, a release of claims substantially in the form attached as Exhibit A to this Agreement (the "Release"), and Executive's continued compliance with Section 5, Executive shall receive, in addition to payments and benefits set forth in Section 3(c), the following:

(i) an amount in cash equal to 0.5 times the Annual Base Salary, payable in the form of salary continuation in regular installments over the six-month period following the date of Executive's Separation from Service (the "Severance Period") in accordance with the Company's normal payroll practices;

(ii) to the extent unpaid as of the Date of Termination, an amount of cash equal to any Annual Bonus earned by Executive for the Company's fiscal year prior to the fiscal year in which the Date of Termination occurs, as determined by the Board in its discretion based upon actual performance achieved, which Annual Bonus, if any, shall be paid to Executive in the fiscal year in which the Date of Termination occurs when bonuses for such prior fiscal year are paid in the ordinary course to actively employed senior executives of the Company; and

(iii) if Executive timely elects to receive continued medical, dental or vision coverage under one or more of the Company's group medical, dental or vision plans pursuant to COBRA, then the Company shall directly pay, or reimburse Executive for, the COBRA premiums for Executive and Executive's covered dependents under such plans, less the amount Executive would have had to pay to receive such coverage as an active employee based on the cost sharing levels in effect on the Date of Termination, during the period commencing on Executive's Separation from Service and ending upon the earliest of (X) the last day of the Severance Period, (Y) the date that Executive and/or Executive's covered dependents become no longer eligible for COBRA or (Z) the date Executive becomes eligible to receive medical, dental or vision coverage, as applicable, from a subsequent employer (and Executive agrees to promptly notify the Company of such eligibility). Notwithstanding the foregoing, if the Company determines in its

sole discretion that it cannot provide the foregoing benefit without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act) or incurring an excise tax, the Company shall in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue Executive's and Executive's covered dependents' group health coverage in effect on the Date of Termination (which amount shall be based on the premium for the first month of COBRA coverage), less the amount Executive would have had to pay to receive group health coverage as an active employee for Executive and his or her covered dependents based on the cost sharing levels in effect on the Date of Termination, which payments shall be made regardless of whether Executive elects COBRA continuation coverage and shall commence in the month following the month in which the Date of Termination occurs and shall end on the earliest of (X) the last day of the Severance Period, (Y) the date that Executive and/or Executive's covered dependents become no longer eligible for COBRA or (Z) the date Executive becomes eligible to receive healthcare coverage from a subsequent employer (and Executive agrees to promptly notify the Company of such eligibility).

(c) Change in Control. In lieu of the payments and benefits set forth in Section 4(b), in the event Executive's employment terminates without Cause pursuant to Section 3(a)(iv), or due to Executive's resignation with Good Reason pursuant to Section 3(a)(v), in either case, within three (3) months prior or twelve (12) months following the date of a Change in Control, subject to Executive signing on or before the twenty-first (21st) day following Executive's Separation from Service or in the event that such Separation from Service is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967, as amended) on or before the forty-fifth (45th) day following Executive's Separation from Service, and not revoking, the Release, Executive shall receive, in addition to the payments and benefits set forth in Section 3(c), the following:

(i) an amount in cash equal to 0.75 times the sum of (A) the Annual Base Salary plus (B) the Target Annual Bonus, payable in equal installments over the nine-month period following the date of Executive's Separation from Service (the "CIC Severance Period") in accordance with the Company's normal payroll practices;

(ii) the payment set forth in Section 4(b)(ii);

(iii) the benefits set forth in Section 4(b)(iii), provided that the "Severance Period" will mean the CIC Severance Period; and

(iv) all unvested equity or equity-based awards held by Executive under any Company equity compensation plans that vest solely based on the passage of time shall immediately become 100% vested (for the avoidance of doubt, with any such awards that vest in whole or in part based on the attainment of performance-vesting conditions being governed by the terms of the applicable award agreement).

(d) Survival. Notwithstanding anything to the contrary in this Agreement, the provisions of Sections 5 through 9 will survive the termination of Executive's employment and the termination of the Term.

5. Restrictive Covenants. Executive acknowledges that Executive remains bound by the Employee Non-Disclosure and Inventions Agreement dated as of May 1, 2019 attached hereto as Exhibit B (the "Restrictive Covenant Agreement"). Executive acknowledges and agrees that the terms of the Restrictive Covenant Agreement are incorporated by reference herein as if re-executed along with this Agreement. Executive acknowledges that the provisions of the Restrictive Covenant Agreement will survive the termination of Executive's employment and the termination of the Term for the periods set forth in the Restrictive Covenant Agreement.

6. Assignment and Successors.

The Company may assign its rights and obligations under this Agreement to any of its affiliates or to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise), and may assign or encumber this Agreement and its rights hereunder as security for indebtedness of the Company and its affiliates. This Agreement shall be binding upon and inure to the benefit of the Company, Executive and their respective successors, assigns, personnel and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will or operation of law. Notwithstanding the foregoing, Executive shall be entitled, to the extent permitted under applicable law and applicable Company Arrangements, to select and change a beneficiary or beneficiaries to receive compensation hereunder following Executive's death by giving written notice thereof to the Company.

7. Certain Definitions.

(a) Cause. The Company shall have "Cause" to terminate Executive's employment hereunder upon:

(i) The Board's reasonable, good faith determination that Executive has refused to (A) substantially perform the duties associated with Executive's position with the Company or (B) carry out the reasonable and lawful instructions of the Board concerning duties or actions consistent with the Executive's position with the Company;

(ii) Executive's breach of a material provision of this Agreement that, to the extent capable of cure, has remained uncured for a period of thirty (30) days following written notice from the Company;

(iii) Executive's conviction, plea of no contest, plea of *nolo contendere*, or imposition of unadjudicated probation for any felony or crime involving moral turpitude;

(iv) Executive's unlawful use (including being under the influence) or possession of illegal drugs on the Company's (or any of its affiliate's) premises or while performing Executive's duties and responsibilities under this Agreement; or

(v) Executive's commission of any act of fraud, embezzlement, misappropriation, willful misconduct, or breach of fiduciary duty against the Company or any of its affiliates.

(b) Change in Control. "Change in Control" shall have the meaning set forth in the Lyra Therapeutics, Inc. 2020 Incentive Award Plan.

(c) Code. "Code" shall mean the Internal Revenue Code of 1986, as amended, and the regulations and guidance promulgated thereunder.

(d) Date of Termination. "Date of Termination" shall mean (i) if Executive's employment is terminated by Executive's death, the date of Executive's death; or (ii) if Executive's employment is terminated pursuant to Section 3(a)(ii) – (vi) either the date indicated in the Notice of Termination or the date specified by the Company pursuant to Section 3(b), whichever is earlier.

(e) Disability. "Disability" shall mean, at any time the Company or any of its affiliates sponsors a long-term disability plan for the Company's employees, "disability" as defined in such long-term disability plan for the purpose of determining a participant's eligibility for benefits, *provided*, *however*, if the long-term disability plan contains multiple definitions of disability, "Disability" shall refer to that definition of disability which, if Executive qualified for such disability benefits, would provide coverage for the longest period of time. The determination of whether Executive has a Disability shall be made by the person or persons required to make disability determinations under the long-term disability plan. At any time the Company does not sponsor a long-term disability plan for its employees, "Disability" shall mean Executive's inability to perform, with or without reasonable accommodation, the essential functions of Executive's positions hereunder for a total of three months during any six-month period as a result of incapacity due to mental or physical illness as determined by a physician selected by the Company or its insurers and acceptable to Executive or Executive's legal representative, with such agreement as to acceptability not to be unreasonably withheld or delayed. Any refusal by Executive to submit to a medical examination for the purpose of determining Disability shall be deemed to constitute conclusive evidence of Executive's Disability.

(f) Good Reason. For the sole purpose of determining Executive's right to severance payments and benefits as described above, Executive's resignation will be with "Good Reason" if Executive resigns within ninety (90) days after any of the following events, unless Executive consents in writing to the applicable event: (i) a reduction in Executive's Annual Base Salary or Target Annual Bonus, other than a reduction of twenty percent (20%) or less of Executive's Annual Base Salary implemented as part of an across the board, proportionate reduction of base salaries for other members of the Company's management team, (ii) a material decrease in Executive's authority or areas of responsibility as are commensurate with Executive's title or position with the Company, (iii) the relocation of Executive's primary office to a location more than fifty (50) miles from the Executive's primary office as of the date of this Agreement or (iv) the Company's breach of a material provision of this Agreement. Notwithstanding the foregoing, no Good Reason will have occurred unless and until Executive has: (a) provided the Company, within sixty (60) days of Executive's knowledge of the occurrence of the facts and circumstances underlying the Good Reason event, written notice stating with specificity the applicable facts and circumstances underlying such finding of Good Reason; (b) provided the Company with an opportunity to cure the same within thirty (30) days after the receipt of such notice; and (c) the Company shall have failed to so cure within such period.

8. Parachute Payments.

(a) Notwithstanding any other provisions of this Agreement or any Company equity plan or agreement, in the event that any payment or benefit by the Company or otherwise to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (all such payments and benefits, including the payments and benefits under Section 4 hereof, being hereinafter referred to as the "Total Payments"), would be subject (in whole or in part) to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Total Payments shall be reduced (in the order provided in Section 8(b)) to the minimum extent necessary to avoid the imposition of the Excise Tax on the Total Payments, but only if (i) the net amount of such Total Payments, as so reduced

(and after subtracting the net amount of federal, state and local income and employment taxes on such reduced Total Payments and after taking into account the phase out of itemized deductions and personal exemptions attributable to such reduced Total Payments), is greater than or equal to (ii) the net amount of such Total Payments without such reduction (but after subtracting the net amount of federal, state and local income and employment taxes on such Total Payments and the amount of the Excise Tax to which Executive would be subject in respect of such unreduced Total Payments and after taking into account the phase out of itemized deductions and personal exemptions attributable to such unreduced Total Payments).

(b) The Total Payments shall be reduced in the following order: (i) reduction on a pro-rata basis of any cash severance payments that are exempt from Section 409A of the Code ("Section 409A"), (ii) reduction on a pro-rata basis of any non-cash severance payments or benefits that are exempt from Section 409A, (iii) reduction on a pro-rata basis of any other payments or benefits that are exempt from Section 409A and (iv) reduction of any payments or benefits otherwise payable to Executive on a pro-rata basis or such other manner that complies with Section 409A; provided, in case of clauses (ii), (iii) and (iv), that reduction of any payments attributable to the acceleration of vesting of Company equity awards shall be first applied to Company equity awards that would otherwise vest last in time.

(c) All determinations regarding the application of this Section 8 shall be made by an accounting firm or consulting group with experience in performing calculations regarding the applicability of Section 280G of the Code and the Excise Tax selected by the Company (the "Independent Advisors"). For purposes of determinations, no portion of the Total Payments shall be taken into account which, in the opinion of the Independent Advisors, (i) does not constitute a "parachute payment" within the meaning of Section 280G(b)(2) of the Code (including by reason of Section 280G(b)(4)(A) of the Code) or (ii) constitutes reasonable compensation for services actually rendered, within the meaning of Section 280G(b)(4)(B) of the Code, in excess of the "base amount" (as defined in Section 280G(b)(3) of the Code) allocable to such reasonable compensation. The costs of obtaining such determination and all related fees and expenses (including related fees and expenses incurred in any later audit) shall be borne by the Company.

(d) In the event it is later determined that a greater reduction in the Total Payments should have been made to implement the objective and intent of this Section 8, the excess amount shall be returned promptly by Executive to the Company.

9. Miscellaneous Provisions.

(a) Governing Law. This Agreement shall be governed, construed, interpreted and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the Commonwealth of Massachusetts without reference to the principles of conflicts of law of the Commonwealth of Massachusetts or any other jurisdiction that would result in the application of the laws of a jurisdiction other than the Commonwealth of Massachusetts, and where applicable, the laws of the United States.

(b) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(c) Notices. Any notice, request, claim, demand, document and other communication hereunder to any Party shall be effective upon receipt (or refusal of receipt) and shall be in writing and delivered personally or sent by facsimile or certified or registered mail, postage prepaid, as follows:

(i) If to the Company, to the Chief Executive Officer of the Company at the Company's headquarters,

(ii) If to Executive, to the last address that the Company has in its personnel records for Executive, or

(iii) At any other address as any Party shall have specified by notice in writing to the other Party.

(d) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile or PDF shall be deemed effective for all purposes.

(e) Entire Agreement. The terms of this Agreement, and the Restrictive Covenant Agreement incorporated herein by reference as set forth in Section 5, are intended by the Parties to be the final expression of their agreement with respect to the subject matter hereof and supersede all prior understandings and agreements, whether written or oral, including any prior employment offer letter or employment agreement between Executive and the Company. The Parties further intend that this Agreement shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative or other legal proceeding to vary the terms of this Agreement.

(f) Amendments; Waivers. This Agreement may not be modified, amended or terminated except by an instrument in writing, signed by Executive and a duly authorized officer of Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy or power hereunder will preclude any other or further exercise of any other right, remedy or power provided herein or by law or in equity.

(g) Construction. This Agreement shall be deemed drafted equally by both the Parties. Its language shall be construed as a whole and according to its fair meaning. Any presumption or principle that the language is to be construed against any Party shall not apply. The headings in this Agreement are only for convenience and are not intended to affect construction or interpretation. Any references to paragraphs, subparagraphs, sections or subsections are to those parts of this Agreement, unless the context clearly indicates to the contrary. Also, unless the context clearly indicates to the contrary, (i) the plural includes the singular and the singular includes the plural; (ii) "and" and "or" are each used both conjunctively and disjunctively; (iii) "any," "all," "each," or "every" means "any and all" and "each and every"; (iv) "includes" and "including" are each "without limitation"; (v) "herein," "hereof," "hereunder" and other similar compounds of the word "here" refer to the entire Agreement and not to any particular paragraph, subparagraph, section or subsection; and (vi) all pronouns and any variations thereof shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the identity of the entities or persons referred to may require.

(h) Arbitration. Any controversy, claim or dispute arising out of or relating to this Agreement, shall be settled solely and exclusively by a binding arbitration process administered by JAMS/Endispute in Boston, Massachusetts. Such arbitration shall be conducted in accordance with the then-existing JAMS/Endispute Rules of Practice and Procedure, with the following exceptions if in conflict: (i) one arbitrator who is a retired judge shall be chosen by JAMS/Endispute; (ii) each Party to

the arbitration will pay one-half of the expenses and fees of the arbitrator, together with other expenses of the arbitration incurred or approved by the arbitrator; and (iii) arbitration may proceed in the absence of any Party if written notice (pursuant to the JAMS/Endispute rules and regulations) of the proceedings has been given to such Party. Each Party shall bear its own attorney's fees and expenses; provided that the arbitrator may assess the prevailing Party's fees and costs against the non-prevailing Party as part of the arbitrator's award. The Parties agree to abide by all decisions and awards rendered in such proceedings. Such decisions and awards rendered by the arbitrator shall be final and conclusive. All such controversies, claims or disputes shall be settled in this manner in lieu of any action at law or equity; provided, however, that nothing in this subsection shall be construed as precluding the bringing of an action for injunctive relief or specific performance as provided in this Agreement or the Restrictive Covenant Agreement. This dispute resolution process and any arbitration hereunder shall be confidential and neither any Party nor the neutral arbitrator shall disclose the existence, contents or results of such process without the prior written consent of all Parties, except where necessary or compelled in a court to enforce this arbitration provision or an award from such arbitration or otherwise in a legal proceeding. If JAMS/Endispute no longer exists or is otherwise unavailable, the Parties agree that the American Arbitration Association ("AAA") shall administer the arbitration in accordance with its then-existing rules as modified by this subsection. In such event, all references herein to JAMS/Endispute shall mean AAA. Notwithstanding the foregoing, Executive and the Company each have the right to resolve any issue or dispute over intellectual property rights by court action instead of arbitration.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid or unenforceable under present or future laws effective during the Term, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible and be legal, valid and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on the advice of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Section 409A.

(i) *General.* The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith.

(ii) *Separation from Service.* Notwithstanding anything in this Agreement to the contrary, any compensation or benefits payable under this Agreement that is designated under this Agreement as payable upon Executive's termination of employment shall be payable only upon Executive's "separation from service" with the Company within the meaning of Section 409A (a "Separation from Service") and, except as provided below, any such compensation or benefits described in Section 4 shall not be paid, or, in the case of installments, shall not commence payment, until the sixtieth (60th) day following Executive's Separation from Service (the "First Payment Date"). Any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's Separation from Service but for the preceding sentence shall be paid to Executive on the First Payment Date and the remaining payments shall be made as provided in this Agreement.

(iii) *Specified Employee.* Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(iv) *Expense Reimbursements.* To the extent that any reimbursements under this Agreement are subject to Section 409A, any such reimbursements payable to Executive shall be paid to Executive no later than December 31 of the year following the year in which the expense was incurred. The Executive will submit Executive's reimbursement request promptly following the date the expense is incurred, and the amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year, other than medical expenses referred to in Section 105(b) of the Code. Executive's right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

(v) *Installments.* Executive's right to receive any installment payments under this Agreement, including without limitation any continuation salary payments that are payable on Company payroll dates, shall be treated as a right to receive a series of separate payments and, accordingly, each such installment payment shall at all times be considered a separate and distinct payment as permitted under Section 409A. Except as otherwise permitted under Section 409A, no payment hereunder shall be accelerated or deferred unless such acceleration or deferral would not result in additional tax or interest pursuant to Section 409A.

10. Executive Acknowledgement.

Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date first written above.

LYRA THERAPEUTICS, INC.

By: /s/ Maria Palasis
Name: Maria Palasis
Title: President and Chief Executive Officer

EXECUTIVE

/s/ Laura Edgerly-Pflug
Laura Edgerly-Pflug

[Signature Page to Employment Agreement]

EXHIBIT A

Separation Agreement and Release

This Separation Agreement and Release (this "Release") is made by and between Laura Edgerly-Pflug ("Executive") and Lyra Therapeutics, Inc. (the "Company") (collectively referred to as the "Parties" or individually referred to as a "Party"). Capitalized terms used but not defined in this Release shall have the meanings set forth in the Employment Agreement (as defined below).

WHEREAS, the Parties have previously entered into that certain Employment Agreement, dated as of April 27, 2020 (the "Employment Agreement") and that certain Employee Non-Disclosure and Inventions Agreement, dated as of May 1, 2019 (the "Restrictive Covenant Agreement"); and

WHEREAS, in connection with Executive's termination of employment with the Company or a subsidiary or affiliate of the Company effective _____, 20__, the Parties wish to resolve any and all disputes, claims, complaints, grievances, charges, actions, petitions and demands that Executive may have against the Company and any of the Releasees as defined below, including, but not limited to, any and all claims arising out of or in any way related to Executive's employment with or separation from the Company or its subsidiaries or affiliates but, for the avoidance of doubt, nothing herein will be deemed to release any rights or remedies in connection with Executive's ownership of vested equity securities of the Company, vested benefits or Executive's right to indemnification by the Company or any of its affiliates pursuant to contract or applicable law (collectively, the "Retained Claims").

NOW, THEREFORE, in consideration of the severance payments and benefits described in Section 4 of the Employment Agreement, which, pursuant to the Employment Agreement, are conditioned on Executive's execution and non-revocation of this Release, and in consideration of the mutual promises made herein, the Company and Executive hereby agree as follows:

1. Severance Payments and Benefits; Salary and Benefits. The Company agrees to provide Executive with the severance payments and benefits described in Section [4(b)][4(c)] of the Employment Agreement, payable at the times set forth in, and subject to the terms and conditions of, the Employment Agreement. In addition, to the extent not already paid, and subject to the terms and conditions of the Employment Agreement, the Company shall pay or provide to Executive all other payments or benefits described in Section 3(c) of the Employment Agreement, subject to and in accordance with the terms thereof. The severance payments and benefits described in Section [4(b)][4(c)] of the Employment Agreement shall be provided in lieu of any Garden Leave payment (as such term is used in the Restrictive Covenants Agreement) and Executive will not be eligible to receive any Garden Leave payment.

2. Release of Claims. Executive agrees that, other than with respect to the Retained Claims, the foregoing consideration represents settlement in full of all outstanding obligations owed to Executive by the Company, any of its direct or indirect subsidiaries and affiliates and any of its or their current and former officers, directors, equityholders, managers, employees, agents, investors, attorneys, shareholders, administrators, affiliates, benefit plans, plan administrators, insurers, trustees, divisions, subsidiaries, predecessor and successor corporations and assigns (collectively, the "Releasees"). Executive, on Executive's own behalf and on behalf of any of Executive's affiliated companies or entities and any of their respective heirs, family members, executors, agents and assigns, other than with respect to the Retained Claims, hereby and forever releases the Releasees from, and agrees not to sue concerning, or in any manner to institute, prosecute or pursue, any claim, complaint, charge, duty, obligation or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Executive may possess against any of the Releasees arising from any omissions, acts, facts or damages that have occurred up until and including the date Executive signs this Release, including, without limitation:

(a) any and all claims relating to or arising from Executive's employment or service relationship with the Company or any of its direct or indirect subsidiaries or affiliates and the termination of that relationship;

(b) any and all claims relating to, or arising from, Executive's right to purchase, or actual purchase of any shares of stock or other equity interests of the Company or any of its affiliates, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state law and securities fraud under any state or federal law;

(c) any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; harassment; retaliation; breach of contract, both express and implied; breach of covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; 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; conversion; and disability benefits;

(d) 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; the Civil Rights Act of 1991; the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Equal Pay Act; the Fair Labor Standards Act; the Fair Credit Reporting Act; the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; the Employee Retirement Income Security Act of 1974; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act; the Sarbanes-Oxley Act of 2002; the Massachusetts Fair Employment Practices Act, M.G.L. c. 151B, § 1 et seq.; the Massachusetts Civil Rights Act, M.G.L. c. 12, §§ IIH and 111; the Massachusetts Equal Rights Act, M.G.L. c. 93, § 102 and M.G.L. c. 214, § IC; the Massachusetts Labor and Industries Act, M.G.L. c. 149, § 1 et seq.; the Massachusetts Privacy Act, M.G.L. c. 214, § 1B; and the Massachusetts Maternity Leave Act, M.G.L. c. 49, § 105D;

(e) any and all claims for violation of the federal or any state constitution;

(f) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

(g) any claim for any loss, cost, damage or expense arising out of any dispute over the non-withholding or other tax treatment of any of the proceeds received by Executive as a result of this Release;

(h) any and all claims arising out of the wage and hour and wage payments laws and regulations of the state or states in which Executive has provided service to the Company or any of its affiliates (including without limitation the Massachusetts Payment of Wages Law); and

(i) any and all claims for attorneys' fees and costs.

Executive agrees that the release set forth in this section shall be and remain in effect in all respects as a complete general release as to the matters released. This Release does not release claims that cannot be released as a matter of law, including, but not limited to, Executive's right to report possible violations of federal law or regulation to any governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation and any right to receive an award for information provided thereunder, Executive's right to file a charge with or participate in a charge by the Equal Employment Opportunity Commission, or any other local, state or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, against the Company for discrimination (with the understanding that Executive's release of claims herein bars Executive from recovering such monetary relief from the Company or any Releasee for any alleged discriminatory treatment), claims for unemployment compensation or any state disability insurance benefits pursuant to the terms of applicable state law, claims to continued participation in certain of the Company's group benefit plans pursuant to the terms and conditions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, claims to any benefit entitlements vested as the date of separation of Executive's employment, pursuant to written terms of any employee benefit plan of the Company or its affiliates and Executive's right under applicable law and any Retained Claims. This Release further does not release claims for breach of Section 3(c) or Section 4 of the Employment Agreement.

3. Acknowledgment of Waiver of Claims under ADEA. Executive understands and acknowledges that Executive is waiving and releasing any rights Executive may have under the Age Discrimination in Employment Act of 1967 ("ADEA"), and that this waiver and release is knowing and voluntary. Executive understands and agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the date Executive signs this Release. Executive understands and acknowledges that the consideration given for this waiver and release is in addition to anything of value to which Executive was already entitled. Executive further understands and acknowledges that Executive has been advised by this writing that: (a) Executive should consult with an attorney prior to executing this Release; (b) Executive has [twenty-one (21)][forty-five (45)] days within which to consider this Release, and the Parties agree that such time period to review this Release shall not be extended upon any material or immaterial changes to this Release; (c) Executive has seven (7) business days following Executive's execution of this Release to revoke this Release pursuant to written notice to the General Counsel of the Company; (d) this Release shall not be effective until after the revocation period has expired; and (e) nothing in this Release prevents or precludes Executive from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs for doing so, unless specifically authorized by federal law. In the event Executive signs this Release and returns it to the Company in less than the [twenty-one (21)][forty-five (45)] day period identified above, Executive hereby acknowledges that Executive has freely and voluntarily chosen to waive the time period allotted for considering this Release.

4. Restrictive Covenants. Executive acknowledges that Executive remains bound by the Restrictive Covenants Agreement, which is incorporated by reference herein as if re-executed along with this Release.

5. Severability. In the event that any provision or any portion of any provision hereof or any surviving agreement made a part hereof becomes or is declared by a court of competent jurisdiction or arbitrator to be illegal, unenforceable or void, this Release shall continue in full force and effect without said provision or portion of provision.

6. No Oral Modification. This Release may only be amended in a writing signed by Executive and a duly authorized officer of the Company.

7. Governing Law; Dispute Resolution. This Release shall be subject to the provisions of Sections 9(a), 9(c) and 9(h) of the Employment Agreement.

8. Effective Date. Executive understands that this Release shall become effective, irrevocable, and binding upon Executive on the day following the seventh (7th) business day from the date upon which Executive signs this Release, so long as Executive has not revoked it within the time period and in the manner specified in Section 3 above. Executive further understands that Executive will not be given any severance benefits under the Agreement unless this Release becomes effective pursuant to its terms.

9. Voluntary Execution of Agreement. Executive understands and agrees that Executive executed this Release voluntarily, without any duress or undue influence on the part or behalf of the Company or any third party, with the full intent of releasing all of Executive's claims against the Company and any of the other Releasees. Executive acknowledges that: (a) Executive has read this Release; (b) Executive has not relied upon any representations or statements made by the Company that are not specifically set forth in this Release; (c) Executive has been represented in the preparation, negotiation and execution of this Release by legal counsel of Executive's own choice or has elected not to retain legal counsel; (d) Executive understands the terms and consequences of this Release and of the releases it contains; and (e) Executive is fully aware of the legal and binding effect of this Release.

IN WITNESS WHEREOF, the Parties have executed this Release on the respective dates set forth below.

EXECUTIVE

Dated: _____

_____

Laura Edgerly-Pflug

LYRA THERAPEUTICS, INC.

Dated: _____

By: _____

Name:

Title:

EXHIBIT B

Restrictive Covenant Agreement

[attached]

EMPLOYEE NON-DISCLOSURE AND INVENTIONS AGREEMENT

In consideration of my employment or continued employment by **Lyra Therapeutics, Inc.** (f/k/a 480 Biomedical, Inc.), a Delaware corporation, or any of its predecessors, successors, subsidiaries or affiliates (collectively, the "Company") I, Laura Edgerly Pflug agree as follows:

Confidentiality

I understand that the Company continually obtains and develops valuable proprietary and confidential information concerning its business, business relationships and financial affairs (the "Confidential Information") and valuable Biological Materials (as defined below) which may become known to me in connection with my employment with the Company.

I acknowledge that all Biological Materials and all Confidential Information, whether or not in writing and whether or not labeled or identified as confidential or proprietary, are and shall remain the exclusive property of the Company or the third party providing such Biological Materials or Confidential Information to myself or the Company. By way of illustration, but not limitation, Confidential Information may include Inventions (as hereafter defined), trade secrets, technical information, know-how, research and development activities of the Company, product and marketing plans, customer and supplier information, apparatus, equipment, processes, systems, formulas, designs, non-public information about FDA proceedings, reports, tangible research materials, technology, business plans, forecasts and information disclosed to the Company or to me by third parties of a proprietary or confidential nature or under an obligation of confidence. Confidential Information is contained in various media, including without limitation, patent applications, computer programs in object and/or source code, flow charts and other program documentation, manuals, plans, drawings, designs, technical specifications, laboratory notebooks, supplier and customer lists, internal financial data and other documents and records of the Company. As used herein "Biological Materials" shall include, without limitation, any and all reagents, substances, chemical compounds, subcellular constituents, cells or cell lines, organisms and progeny, mutants, derivatives or replications thereof or therefrom.

I agree that I shall not, during the term of my employment and thereafter, publish, disclose or otherwise make available to any third party, other than employees of the Company, any Confidential Information or Biological Materials which become known to me in connection with my employment by the Company except as expressly authorized in writing by the Company. I agree that I shall use such Confidential Information and Biological Materials which become known to me in connection with my employment by the Company only in the performance of my duties for the Company and in accordance with any Company policies with respect to the protection of Confidential Information and Biological Materials. I agree not to use such Confidential Information or Biological Materials which become known to me in connection with my employment by the Company for my own benefit or for the benefit of any other person or business entity.

I agree to exercise all reasonable precautions to protect the integrity and confidentiality of Confidential Information and Biological Materials in my possession and not to remove any materials containing Confidential Information or Biological Materials which become known to me in connection with my employment by the Company from the Company's premises except to the extent necessary to perform duties for and authorized by the Company in connection with my employment. Upon the termination of my employment, or at any time upon the Company's request, I shall return immediately to the Company any and all Biological Materials and any materials containing any Confidential Information then in my possession or under my control.

Confidential Information shall not include information which (a) is or becomes generally known within the Company's industry through no fault of mine; (b) was known to me at the time it was disclosed as evidenced by my written records at the time of disclosure; (c) is lawfully and in good faith made available to me by a third party who did not derive it from the Company and who imposes no obligation of confidence on me; or (d) is required to be disclosed by a governmental authority or by order of a court of competent jurisdiction, provided that such disclosure is subject to all applicable governmental or judicial protection available for like material and reasonable advance notice is given to the Company.

Assignment of Inventions

I agree promptly to disclose to the Company any and all ideas, concepts, discoveries, inventions, developments, original works of authorship, software programs, software and systems documentation, trade secrets, technical data, know-how and Biological Materials that are conceived, devised, invented, developed or reduced to practice or tangible medium by me, under my direction or jointly with others during any period that I am employed or engaged by the Company, whether or not during normal working hours or on the premises of the Company, which relate, directly or indirectly, to the business of the Company and arise out of my employment with the Company (hereinafter "Inventions").

I hereby assign to the Company all of my right, title and interest to the Inventions and any and all related patent rights, copyrights and applications and registrations therefor. During and after my employment, I shall cooperate with the Company, at the Company's expense, in obtaining proprietary protection for the Inventions and I shall execute all documents which the Company shall reasonably request in order to perfect the Company's rights in the Inventions. I hereby appoint the Company my attorney to execute and deliver any such documents on my behalf in the event I should fail or refuse to do so within a reasonable period following the Company's request. I understand that, to the extent this Agreement shall be construed in accordance with the laws of any state which limits the assignability to the Company of certain employee inventions, this Agreement shall be interpreted not to apply to any such invention which a court rules or the Company agrees is subject to such state limitation.

I further represent that the attached Schedule A contains a complete list of all inventions made, conceived or first reduced to practice by me, under my direction or jointly with others prior to my employment with the Company ("Prior Inventions") and which are not assigned to the Company hereunder. If there is no such Schedule A attached hereto, I represent that there are no such Prior Inventions.

Other Agreements

I hereby represent to the Company that, except as identified on Schedule B, I am not bound by any agreement or any other previous or existing business relationship which conflicts with or prevents the full performance of my duties and obligations to the Company (including my duties and obligations under this or any other agreement with the Company) during my employment.

I understand that the Company does not desire to acquire from me any trade secrets, know-how or confidential business information I may have acquired from others. Therefore, I agree during my employment with the Company, I will not improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer, or any other person or entity with whom I have an agreement or to whom I owe a duty to keep such information in confidence. Those persons or entities with whom I have such agreements or to whom I owe such a duty are identified on Schedule B.

Exclusive Commitment

I agree that during the term of my employment with the Company and for a period of one year thereafter, I shall not, without the Company's prior written consent, engage in any business or enterprise (whether as founder, owner, partner, officer, director, employee, consultant, investor, lender or otherwise, except as the holder of not more than 5% of the outstanding capital stock of a publicly-held company) whose primary area of business involves the field of biomaterials, materials delivery systems and technologies, drug-delivery systems and technologies and access devices related to products or technologies actively developed by 480 Biomedical, Inc. (the "Field").

General Non-solicitation

I agree that during my employment with the Company and for a period of two years after the termination or cessation of such employment for any reason, I shall not solicit, divert or take away, or attempt to divert or take away, the business or patronage of any of the clients, customers or accounts, or prospective clients, customers or accounts, of the Company.

Non-solicitation of Employees

I agree that during my employment and for a period of two years after the termination or cessation of my employment for any reason, I shall not directly or indirectly recruit or solicit any employee of the Company, or induce or attempt to induce any employee of the Company to discontinue his or her employment relationship with the Company.

No Obligation of Continued Employment

I understand that this Agreement does not constitute a contract of employment or create an obligation on the part of the Company to continue my employment with the Company. I understand that my employment is "at will" and that my obligations under this Agreement shall not be affected by any change in my position, title or function with, or compensation, by the Company.

General

This Agreement may not be assigned by either party except that the Company may assign this Agreement in connection with the merger, consolidation or sale of all or substantially all of its business or assets. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and other legal representatives and, to the extent that any assignment hereof is permitted hereunder, their assignees.

This Agreement supersedes all prior agreements, written or oral, with respect to the subject matter of this Agreement. This Agreement may be changed only by a written instrument signed by both parties hereto.

In the event that any one or more of the provisions contained herein shall, for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and all other provisions shall remain in full force and effect. If any of the provisions of this Agreement is held to be excessively broad, it shall be reformed and construed by limiting and reducing it so as to be enforceable to the maximum extent permitted by law.

No delay or omission by the Company in exercising any right under this Agreement will operate as a waiver of that or any other right. A waiver or consent given by the Company on any occasion if effective only in that instance and will not be construed as a bar to or waiver of any right on any other occasion.

I acknowledge that the restrictions contained in this Agreement are necessary for the protection of the business and goodwill of the Company and are reasonable for such purpose. I agree that any breach of this Agreement by me will cause irreparable damage to the Company and that in the in the event of such breach, the Company shall be entitled, in addition to monetary damages and to any other remedies available to the Company under this Agreement and at law, to equitable relief, including injunctive relief, and to payment by myself of all costs incurred by the Company in enforcing the provisions of this Agreement, including reasonable attorneys' fees, in such event without the necessity of first proving actual damages. I agree that should I violate any obligation imposed on me in this Agreement, I shall continue to be bound by the obligation until a period equal to the term of such obligation has expired without violation of such obligation.

This Agreement shall be construed as a sealed instrument and shall in all events and for all purposes be governed by, and construed in accordance with, the laws of the Commonwealth of Massachusetts without regard to any choice of law principle that would dictate the application of the laws of another jurisdiction. Any action, suit or other legal proceeding which I may commence to resolve any matter arising under or relating to any provision of this Agreement shall be commenced only in a court of the Commonwealth of Massachusetts (or, if appropriate, a federal court located within Massachusetts), and I hereby consent to the jurisdiction of such court with respect to any action, suit or proceeding commenced in such court by the Company.

I HAVE READ ALL OF THE PROVISIONS OF THIS AGREEMENT AND I UNDERSTAND, AND AGREE TO, EACH OF SUCH PROVISIONS.

May 1, 2019
Date:

/s/ Laura Edgerly Pflug
Name:

Acknowledged and
agreed to by: Lyra Therapeutics, Inc.

/s/ Maria Palasis
By:

Maria Palasis
Printed Name:

CEO
Title:

[SIGNATURE PAGE TO EMPLOYEE NON-DISCLOSURE AND INVENTIONS AGREEMENT]

SCHEDULE A
PRIOR INVENTIONS

The following is a complete list of all Prior Inventions

_____ No Prior Inventions

_____ See below for description of Prior Inventions

_____ Additional Sheets Attached

I agree that, if in the course of my employment with the Company, and without first notifying the Company in writing of my intention to do so, I incorporate into a Company product, process or machine a Prior Invention owned by me or in which I have an interest, the Company shall automatically be granted and shall have a non-exclusive, royalty-free, irrevocable, transferable, perpetual world-wide license to make, have made, modify, use and sell such Prior Invention as part of, or in connection with, such product, process or machine.

SCHEDULE B
PRIOR COMMITMENTS

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

Lyra Therapeutics, Inc.
Watertown, Massachusetts

We hereby consent to the use in the Prospectus constituting a part of this Registration Statement of our report dated February 14, 2020, except for Note 13 b and c, which are as of April 27, 2020, relating to the consolidated financial statements of Lyra Therapeutics, Inc. and subsidiary, which is contained in that Prospectus.

We also consent to the reference to us under the caption “Experts” in the Prospectus.

/s/ BDO USA, LLP
Boston, Massachusetts

April 27, 2020